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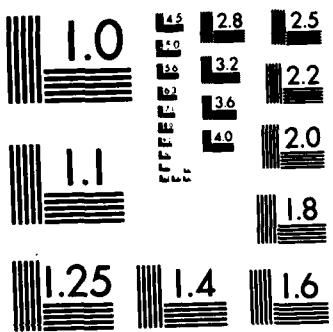
OCEAN DUMPING REPORT FOR CALENDAR YEAR 1982 DREDGED  
MATERIAL(U) CORPS OF ENGINEERS FORT BELVOIR VA WATER  
RESOURCES SUPPORT CENTER OCT 83 WRSC-83-SR-1

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MICROCOPY RESOLUTION TEST CHART  
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US Army Corps  
of Engineers  
Water Resources  
Support Center

Summary Report 83-SR-1

OCTOBER 1983

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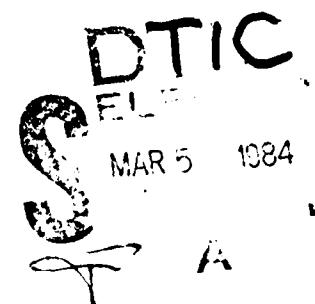
UNITED STATES OF AMERICA

# Ocean Dumping Report for Calendar Year

# 1982

## DREDGED MATERIAL

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20. ABSTRACT (Continue on reverse side if necessary and identify by block number) The following Summary Report contains 101 Inter-Governmental Maritime Consultative Organization (IMCO) reports. These reports were prepared by numerous Corps of Engineers employees in 20 Corps districts and divisions which have coastal boundaries. There are 48 reports which represent the CY 1980 permitted dredged material ocean disposal activities conducted under authority of Section 103 of the Marine Protection Research and Sanctuaries Act of 1972. The remaining 53 reports represent the CY 1982 Corps of Engineers dredged material disposal activities as authorized by the United States Congress.		

UNITED STATES OF AMERICA  
OCEAN DUMPING  
REPORT FOR  
CALENDAR YEAR  
1982

DREDGED MATERIAL

Prepared by the U. S. Army Corps of Engineers  
Water Resources Support Center  
Casey Building  
Ft. Belvoir, VA 22060



A-1<sup>23</sup>  
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of the Federal Government nor of the U. S. Army Corps of Engineers.

### Background

Under the authority of the Inter-Government Maritime Consultative Organization (IMCO), the United States and all other contracting nations to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter are required to submit an annual report for each ocean disposal operation. The U. S. Army Corps of Engineers has been tasked with preparing the dredged material portion of these IMCO Ocean Dumping Reports.

### Reports Numbering System

The following microfiche contain all 101 U. S. prepared CY 1982 IMCO Dredged Material Ocean Disposal Reports. They are numbered as follows:

- (1) Reports P-1 through P-48 represent the 48 CY 1982 permitted dredged material ocean disposal activities conducted under authority of Section 103 of the Marine Protection Research and Sanctuaries Act of 1972.
- (2) Reports C-1 through C-53 represent the 53 CY 1982 Corps of Engineers dredged material ocean disposal activities as authorized by the United States Congress.

### Summary of Data

During CY 1982 the U. S. ocean disposed 28,572,985 cubic meters of dredged material of which 2,806,342 cubic meters were disposed under Section 103 authority and 25,766,643 cubic meters were disposed under Corps project authority.

Geographical distribution of the U. S. CY 1982 ocean-disposed dredged material was as follows:

<u>Area</u>	<u>Cubic Meters</u>	<u>IMCO Report References</u>
Atlantic Ocean	9,172,660	P-1 through P-41, C-1 through C-27
Gulf of Mexico	13,759,519	C-28 through C-40
Pacific Ocean	5,640,806	P-42 and P-48, C-41 through C-53

### Authorship

The inclosed 101 IMCO Ocean Dumping Reports were prepared by numerous Corps of Engineers employees in 20 Corps districts and Divisions which have coastal boundaries. For additional information concerning this report, the central point of contact in the United States Government is:

Water Resources Support Center (WRSC-D)  
Corps of Engineers  
Casey Building  
Ft. Belvoir, VA 22060

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INCO DREDGED MATERIAL OCEAN DISPOSAL REPORT

CY 1982

1. Issuing authority: USACEDivision New England      District N/A2. Date issued: 13 MAY 81 (81-157)3. Country of origin of dredged material or other matter:

United States of America, Maine

Port of loading (activity location): Portland Harbor4. General description of dredged material, dredging, and transportation  
made:a. Description: Silty sands and claysb. Mode of dredging: Clamshell-bucketc. Mode of transportation: Scow5. Form in which dredged material is presented for disposal:

Saturated cohesive and noncohesive material

6. Material quantity (volume in metric units, cubic meters) of material dumpedin the ocean and dates of actual disposal during reporting calendar year.124,466 m<sup>3</sup>      3 Jan - 2 May

7. Period for which permit is valid or project is scheduled:

Until 13 May 1991

8. Expected frequency of dumping:

1-2 scows / day

9. Chemical composition of the liquid phase of dredged material as described in the 11 January 1977 Federal Register which contains the Environmental Protection Agency's final regulations and criteria:

a. Liquid Phase test results: Not performed

(1) Nutrients:

(2) Metals:

(3) Organics:

b. Other analyses:

(1) Metals:	Zn	76	Cu	33
(PPM)	Pb	23	Ni	43
	Hg	<1	Cd	3.8
	Cr	30	As	<1

(2) Organics: Oil &amp; Grease (%) .0011

(3) Other: Vol Sol (%) 4.3

10. Bioassay and Bioassessment Evaluations: Not performeda. Liquid Phase Bioassay:b. Suspend Particulate Phase Bioassay:c. Solid Phase Bioassay:11. Properties of the dredged material: N/Aa. Solubility (% Water):b. Density (gm/cc):c. pH:

- PA
12. Method of release: THE SLOW RELEASES THE DREDGED MATERIAL THROUGH HYDRAULICALLY OPERATED HOSES UPON COMMAND TO A BARGE AT THE DUMPING SITE.
13. Procedure and site for subsequent barge and hopper washing: INSTEAD, FLUIDS ARE WASHED DOWN AT SITE ON THE CRANE OR DUMP SITE.
14. Approved dumping site:
- Geographical position (latitude and longitude):  $43^{\circ} 34.1' N$   
 $070^{\circ} 02.0' W$
  - Depth of water (meters): 50 m
  - Distance from nearest coast: 11 Km
15. Additional information: THE DUMP SITE IS SUBJECT TO MONITORING STUDIES UNDER THE OCEANIC AREA MONITORING SYSTEM (OANOS) PROGRAM. THE PROGRAM IS DESIGNED TO IDENTIFY AND EVALUATE IMPACTS OF POLLUTION FROM THE DISCHARGE OF THE DREDGED MATERIALS AT DESIGNATED DUMP SITES. THE OANOS PROGRAM CONTINUES ON AN ONGOING BASIS. MONITORING IS PLANNED AND MONITORING REPORTS WILL BE PROVIDED ON THE DREDGED MATERIALS DISCHARGED AND LOGGED AS WELL AS TIME.
- THIS PROGRAM WAS DESIGNATED TO COMPLY WITH SECTION 227.9 AND 228.10 OF THE OCEAN DUMPING ACT RELATIVE TO DUMP SITE MONITORING AND THE MAINTENANCE OF RECORDS.

INCO DREDGED MATERIAL OCEAN DISPOSAL REPORT

CY 1974

1. Issuing authority: UACFDivision New England    District HIA2. Date issued: 8 Mar 19743. Country of origin of dredged material or other matter: United States of America, MainePort of loading (activity location): Drift4. General description of dredged material, dredging, and transportation made:a. Description: Silts and claysb. Mode of dredging: clamshell bucketc. Mode of transportation: barge5. Form in which dredged material is presented for disposal: (check one)  
 noncohesive material6. Material quantity (volume in metric units, cubic meters), of material dumped in the ocean and dates of actual disposal during reporting calendar year.127,940 m<sup>3</sup>    15 Jun - 30 Dec

7. Period for which permit is valid or project is scheduled:

Until 8 Mar 1982

8. Expected frequency of dumping:

One loc/dow

9. Chemical composition of the liquid phase of dredged material as described in the 11 January 1977 Federal Register which contains the Environmental Protection Agency's final regulations and criteria:

a. Liquid Phase test results:

(1) Nutrients:

(2) Metals: (PPM) Cd <.006 As <.05  
Cr <.02 V <.01  
Hg <.0002  
Ni .52  
Zn .27

(3) Organics: (PPM) Oil & grease 6.5

b. Other analyses:

(1) Metals:

TiM	44	Zn	245
V	49	Al	100
Hg	4.2	V	53
Pb	24.9		
Ni	27.3		

(2) Organics:

(ppm)	TKN	12
	Oil & Grease	22

(3) Other: Volatile (ppm) 93%

10. Bioassay and Bioassessment Evaluations: Not Required

a. Liquid Phase Bioassay:

b. Suspend Particulate Phase Bioassay:

c. Solid Phase Bioassay:

11. Properties of the dredged material:

a. Solubility (% Water):

b. Density (gm/cc):

c. pH:

12. Method of release: THE DREDGED MATERIALS ARE  
DISCHARGED BY THE USE OF HOSES CONNECTED TO A NOSE OR THE PUMP LINE.

13. Procedure and site for subsequent barge and hopper washing: NORMALLY SPARE HOPPERS  
ARE USED FOR THE DREDGE AND THE BARGE.

14. Approved dumping site:

a. Geographical position (latitude and longitude):

43° 34.1' N

70° 02.0' W

b. Depth of water (meters):

c. Distance from nearest coast: 11 KM

15. Additional information: THIS DUMP SITE IS SUBJECT TO MONITORING  
BY GROUPS UNLESS THIS AGREEMENT IS REVOKED BY THE DREDGER  
AT LEAST ONE MONTH IN ADVANCE OF THE EXPIRATION DATE.  
MONITORING WILL BE CONDUCTED BY THE DREDGER AND  
THE DREDGER PAYMENT COMPENSATION FOR THE DREDGING  
AND MONITORING AGREED TO IN THIS AGREEMENT  
WILL NOT BE CHANGED AS TIME GOES BY.

THIS PROGRAM WILL BE DESIGNED TO COMPLY WITH SECTION 208  
AND SECTION 209 OF THE OCEAN POLLUTION PREVENTION ACT  
NON-HAZARDOUS SOLIDS WILL BE DUMPED IN ACCORDANCE

LMCO DREDGED MATERIAL OCEAN DISPOSAL REPORTCY 19821. Issuing authority: USACEDivision NEW ENGLAND District N/A2. Date issued: 5 APRIL 1982 (S-1-1)3. Country of origin of dredged material or other matter:

United States of America, MAINE

Port of loading (activity location): Portland Harbor4. General description of dredged material, dredging, and transportationmade:a. Description: Sandy soilb. Mode of dredging: Clamshell-bucketc. Mode of transportation: Scow5. Form in which dredged material is presented for disposal: Saturated cohesive  
and non-cohesive material6. Material quantity (volume in metric units, cubic meters) of material dumpedin the ocean and dates of actual disposal during reporting calendar year.306 m<sup>3</sup> 17 Sept.

P. 1. 2 of 2  
7. Period for which permit is valid or project is scheduled:

Until April 5 1982

8. Expected frequency of dumping:

Only one trip

9. Chemical composition of the liquid phase of dredged material as described

in the 11 January 1977 Federal Register which contains the Environmental

Protection Agency's final regulations and criteria:

a. Liquid Phase test results:

N/A

(1) Nutrients:

(2) Metals:

(3) Organics:

b. Other analyses:

(1) Metals:  
(PPM) Cd 3.2  
Pb 377  
Zn 242  
Cu 105  
Hg 4.7

(2) Organics:  
(PPM) Oil & Grease 140A

## (3) Other:

10. Bioassay and Bioassessment Evaluations: Not Performed

a. Liquid Phase Bioassay:

b. Suspend Particulate Phase Bioassay:

c. Solid Phase Bioassay:

11. Properties of the dredged material: N/A

a. Solubility (% Water):

b. Density (gm/cc):

c. pH:

12. Method of release: THE CLOW RELEASES THE DREDGED MATERIAL FROM A HYDRAULICALLY OPERATED DOVETAIL UPON COMING TO A HALT AT THE DUMPING POINT.
13. Procedure and site for subsequent barge and hopper washing: NORMALLY, SPENT WATER IS PUMPED DOWN AT EITHER THE DREDGE OR BARGE SITE.
14. Approved dumping site:
- Geographical position (latitude and longitude):  $43^{\circ} 34.1' \text{N}$   
 $70^{\circ} 62.0' \text{W}$
  - Depth of water (meters): 50
  - Distance from nearest coast: 11 KM
15. Additional information: THIS DUMPSITE IS SUBJECT TO MONITORING STUDIES UNDER THE DISPOSAL AREA MONITORING SYSTEM (DAMOS) PROGRAM. THE PROGRAM IS DESIGNED TO DETERMINE AND EVALUATE IMPACTS RESULTING FROM THE DISPOSAL OF DREDGED MATERIALS AT DESIGNATED DUMP SITES. THE DATA IS PROVIDED FOR USE IN CONTROLLING THE DEVELOPMENT OF NEW MONITORING METHODOLOGIES. THAT MEANS IT IS SUBJECT TO FEDERAL REGULATION, AND AS SUCH, IS USED AS IT IS.
- THIS PROGRAM WAS DEVELOPED TO COMPLY WITH SECTION 12(2)(B) OF THE OCEAN POLLUTION AND RELATED TO DUMPING MONITORING AND THE CONTROL OF DISPOSAL.

IMCO DREDGED MATERIAL OCEAN DISPOSAL REPORTCY 19821. Issuing authority: USACEDivision New England Div. District N/A2. Date issued: 7 July 1982 (S 2 228)3. Country of origin of dredged material or other matter: United States  
of America, MainePort of loading (activity location): Portland Harbor4. General description of dredged material, dredging, and transportationmade:

a. Description: DARK-GREY TO BLACK ORGANIC MUD; BROWN, FINE GRANULAR  
SAND; RUST, BROWN AND ORGANIC MATERIAL; BROWN-GLUINOUS CLAY,  
INTERBEDDED WITH SILTS AND SANDS; MOSTLY GRAY WITH IRON AND CLAY  
INTERBEDDED.

b. Mode of dredging: Clamshell-bucket

c. Mode of transportation: Scow

5. Form in which dredged material is presented for disposal: Dispersed6. Material quantity (volume in metric units, cubic meters) of material dumpedin the ocean and dates of actual disposal during reporting calendar year.45,8850 , m<sup>3</sup> 19 Oct-31 Dec 1982

7. Period for which permit is valid or project is scheduled:

7 JULY 1982 - 31 DECEMBER 1985

8. Expected frequency of dumping:

TWICE DAILY, SEVEN DAYS PER WEEK

9. Chemical composition of the liquid phase of dredged material as described

in the 11 January 1977 Federal Register which contains the Environmental

Protection Agency's final regulations and criteria:

a. Liquid Phase test results:

(1) Nutrients:

(2) Metals:

(PPM)	As <.05	Pb <.05
	K <.01	Hg <.0002
	Cd <.006	Ni <.01
	Cr <.01	Zn 0.23
	CU <.01	

(3) Organics:

PCB (PPB)	5
Oil & Grease (g/g)	2

b. Other analyses: Bulk sediment (av. of 9 locations; top, middle and bottom of each)

(1) Metals: (PPM, dry wt)

As	2.71	Hg	0.66
Cd	1.82	Ni	25.6
Cr	25.10	Pb	159
Cu	132	Zn	321

(2) Organics: (dry wt)

Oil & Grease (%)	1.50
PCB (PPB)	1.65

(3) Other:

Vol Sol(%)	10.5
------------	------

10. Bioassay and Bioassessment Evaluations:

a. Liquid Phase Bioassay:

b. Suspend Particulate Phase Bioassay:

c. Solid Phase Bioassay:

No Significant Effect indicated by bioassay or bioaccumulation tests

11. Properties of the dredged material:

a. Solubility (% Water):

b. Density (gm/cc):

c. pH:

12. Method of release: THE SCOW RELEASING THE DISPOSED MATERIALS THROUGH  
HYDRAULICALLY OPERATED PUMPS. WATER CIRCULATION IS AFFECT AT THE DUMP SITE.  
13. Procedure and site for subsequent barge and hopper washing: NORMAL. SCOWS WILL  
WASHED DOWN THE BARGE FOR DIVERSE USES AS NEEDED.
14. Approved dumping site:
- Geographical position (latitude and longitude):  $43^{\circ} 34.1'N$   
 $70^{\circ} 02.0'W$
  - Depth of water (meters): 50
  - Distance from nearest coast: 11 KM
15. Additional information: THIS DUMP SITE IS SUBJECT TO MONITORING  
STUDIES UNDER THE DISPOSAL AREA MONITORING SYSTEM (DAMOS) PROGRAM.  
THE STUDY IS PLANNED TO IDENTIFY AND EVALUATE IMPACTS RESULTING  
FROM THE DISPOSAL OF DISPOSED MATERIALS AT DESIGNATED DUMP SITES.  
THE DAMOS PROGRAM IS ESSENTIALLY CONTRIBUTED TO THE DEVELOPMENT OF  
MONITORING AND CONTROL TECHNIQUE IN THE EFFICIENCY OF  
DISPOSAL OPERATION AND LENGTHEN THE DUMP AS TIME.  
THIS PROPOSAL IS DESIGNED TO COMPLY WITH SECTIONS 228.9 AND  
229.13 OF THE OCEAN DUMPING ACT PERTAINING TO DUMP SITE MONITORING  
AND CONTROL.

IMCO DREDGED MATERIAL OCEAN DISPOSAL REPORTCY 1981

1. Issuing authority: USA CE

Division NEW ENGLAND District N/A

2. Date issued: 27 MAY 1981 (21-160)

3. Country of origin of dredged material or other matter:

United States of America, Massachusetts

Port of loading (activity location): Allerton Harbor, Hull

4. General description of dredged material, dredging, and transportation made:

- a. Description:

Organic silty fine sand

- b. Mode of dredging: Clamshell-bucket

- c. Mode of transportation: Scow

5. Form in which dredged material is presented for disposal: Saturated cohesive and noncohesive material

6. Material quantity (volume in metric units, cubic meters) of material dumped in the ocean and dates of actual disposal during reporting calendar year.

.90,270 m<sup>3</sup> 8 March - 16 May

7. Period for which permit is valid or project is scheduled:

10 years

8. Expected frequency of dumping:

2 trips/day

9. Chemical composition of the liquid phase of dredged material as described

in the 11 January 1977 Federal Register which contains the Environmental

Protection Agency's final regulations and criteria:

a. Liquid Phase test results:

(1) Nutrients: mg/kg	AV ALL SITES	REF. WATER
Nitrate N	<1	<.1
Nitrite N	.006	.003
Total Phosphate P	.36	.16
Sulfate	2200	3300

(2) Metals: mg/kg		
Hg	.0055	.007
PB	1.05	0.98
Zn	<3	<3
Cd	<.5	<.5

(3) Organics:		

b. Other analyses: **Av All SITES**  
**percent  
dry wt.**

(1) Metals:

Cd	<.5
Pb	<.0025
Zn	<.0009
Hg	<.0003

(2) Organics:

90 oil & grease 2A3

(3) Other:

10. Bioassay and Bioassessment Evaluations:

- a. Liquid Phase Bioassay: No significant effect.
- b. Suspend Particulate Phase Bioassay: No significant effect.
- c. Solid Phase Bioassay: No significant effect. Significant accumulation of petroleum hydrocarbons and PCB's

11. Properties of the dredged material:

- a. Solubility (% Water): NA
- b. Density (gm/cc): NA
- c. pH: NA

12. Method of release: THE SCOW RELEASES THE DREDGED MATERIAL THROUGH HYDRAULICALLY OPERATED DOORS UPON COMING TO A HALT AT THE DUMPING POINT
13. Procedure and site for subsequent barge and hopper washing: NORMALLY, SCOWS ARE WASHED DOWN AT EITHER THE DREDGE'S OR DUMP SITE
14. Approved dumping site:
  - a. Geographical position (latitude and longitude):  
42° 25.9' N  
070° 34.9' W
  - b. Depth of water (meters): 77
  - c. Distance from nearest coast: 18.3 Km

15. Additional information:

THIS DUMP SITE IS SUBJECT TO MONITORING STUDIES UNDER THE DISPOSAL AREA MONITORING SYSTEM (DAMOS) PROGRAM. THE PROGRAM IS DESIGNED TO IDENTIFY AND EVALUATE IMPACTS RESULTING FROM THE DISPOSAL OF DREDGED MATERIALS AT DESIGNATED DUMP SITES. THE DAMOS PROGRAM CONTINUALLY CONTRIBUTES TO THE DEVELOPMENT OF NEW MONITORING METHODOLOGIES THAT REFLECT ON THE EFFICIENCY OF FIELD OBSERVATIONS AND LOGISTICS, AS WELL AS TIME.

THIS PROGRAM WAS DESIGNATED TO COMPLY WITH SECTIONS 228.9 AND 228.10 OF THE OCEAN DUMPING ACT RELATIVE TO DUMP SITE MONITORING AND THE EVALUATION OF DISCHARGING IMPACTS.

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pg.

IMCO DREDGED MATERIAL OCEAN DISPOSAL REPORT

CY 1982

1. Issuing authority: USA CE

Division NEW ENGLAND      District N/A

2. Date issued: 29 MAY 1981 (81-183)

3. Country of origin of dredged material or other matter:  
United States of America, Massachusetts

Port of loading (activity location): Gloucester Harbor

4. General description of dredged material, dredging, and transportation  
made:

a. Description: Clayey sandy silt.

b. Mode of dredging: Clamshell-bucket

c. Mode of transportation: Scow

5. Form in which dredged material is presented for disposal: Saturated cohesive  
and noncohesive material

6. Material quantity (volume in metric units, cubic meters) of material dumped  
in the ocean and dates of actual disposal during reporting calendar year.

32,245 m<sup>3</sup> 13 Jul - 30 Aug 1982.

7. Period for which permit is valid or project is scheduled:

Permit valid until December 1984

8. Expected frequency of dumping:

2 scows/day

9. Chemical composition of the liquid phase of dredged material as described

in the 11 January 1977 Federal Register which contains the Environmental

Protection Agency's final regulations and criteria:

a. Liquid Phase test results:

(1) Nutrients:

(2) Metals:

(3) Organics:

b. Other analyses: Bulk sediment analysis

	Mg/kg dry wt		
(1) Metals:			
Hg	1.659	Site 2	
PB	108	2433	0.102
Zn	430	488	4
AS	3.3	3.9	104
CD	1.14	1.25	24
Cr	30	45	0.6
Cu	126	92	255
Ni	16	16	13
	22	36	28
(2) Organics:			
% TOC	14.23	14.85	4.7
mg/kg TKN	607	640	319
(3) Other:			
% volatile sol.	11.13	10.12	4.75

10. Bioassay and Bioassessment Evaluations:

- a. Liquid Phase Bioassay: Some significant mortality one species
- b. Suspend Particulate Phase Bioassay: No significant effect
- c. Solid Phase Bioassay: Some significant mortality. No bioaccumulation testing

11. Properties of the dredged material:

- |                                 | Site 1 | Site 2 | Site 3 |
|---------------------------------|--------|--------|--------|
| a. <u>Solubility (% Water):</u> | 44.2   | 44.3   | 35.9   |
| b. <u>Density (gm/cc):</u>      |        |        |        |
| c. <u>pH:</u>                   |        |        |        |

12. Method of release: THE SCOW RELEASES THE DRAGGED MATERIAL THROUGH HYDRAULICALLY OPERATED DOORS UPON COMING TO A HALT AT THE DUMPING POINT.
13. Procedure and site for subsequent barge and hopper washing: NORMALLY, SCOWS ARE WASHED DOWN AT EITHER THE DRAGGED OR DUMP SITE.
14. Approved dumping site:
  - a. Geographical position (latitude and longitude):

42° 25.9' N  
070° 34.9' W
  - b. Depth of water (meters): 77 M.
  - c. Distance from nearest coast: 18.3 Km

15. Additional information:

More contaminated material disposed in upland site.

THIS DUMP SITE IS SUBJECT TO MONITORING STUDIES UNDER THE DISPOSAL AREA MONITORING SYSTEM (DAMOS) PROGRAM. THE PROGRAM IS DESIGNED TO IDENTIFY AND EVALUATE IMPACTS RESULTING FROM THE DISPOSAL OF DRAGGED MATERIALS AT DESIGNATED DUMP SITES. THE DAMOS PROGRAM CONTINUALLY CONTRIBUTES TO THE DEVELOPMENT OF NEW MONITORING METHODOLOGIES THAT REFLECT ON THE EFFICIENCY OF FIELD OBSERVATIONS AND LOGISTICS, AS WELL AS TIME.

This program was designed to comply with sections 229.9 and 234.10 of the Ocean Dumping Act relative to dump site monitoring and the evaluation of disposal impacts.

F 11 17.1

IMCO DREDGED MATERIAL OCEAN DISPOSAL REPORT

CY 1982

1. Issuing authority: USACE

Division NEW ENGLAND    District N/A

2. Date issued: 12 JUNE 1982

3. Country of origin of dredged material or other matter:

UNITED STATES OF AMERICA, MASSACHUSETTS

Port of loading (activity location): CHELSEA RIVER

4. General description of dredged material, dredging, and transportation  
made:

a. Description: ORGANIC SILT

b. Mode of dredging: Clamshell-bucket

c. Mode of transportation: SCOW

5. Form in which dredged material is presented for disposal: Saturated cohesive  
and noncohesive material

6. Material quantity (volume in metric units, cubic meters) of material dumped  
in the ocean and dates of actual disposal during reporting calendar year.

11,327 m<sup>3</sup>    24 Aug - 29 October

7. Period for which permit is valid or project is scheduled:

Until June 15 1992

8. Expected frequency of dumping:

About 1 load/day

9. Chemical composition of the liquid phase of dredged material as described

in the 11 January 1977 Federal Register which contains the Environmental

Protection Agency's final regulations and criteria:

a. Liquid Phase test results: N/A

(1) Nutrients:

(2) Metals:

(3) Organics:

b. Other analyses: Bulk sediment

(1) Metals: As 74 Pb 210  
 (ppm) Cd 2 Ni 23  
 Cr 180 V 55  
 Cu 150 Zn 300  
 Hg 0.92

(2) Organics: Oil & grease (mg/g) 10.7  
 PCB's (ppm) 0.48

(3) Other: Vol sol (%) 7.0

10. Bioassay and Bioassessment Evaluations: Not performed

a. Liquid Phase Bioassay:

b. Suspend Particulate Phase Bioassay:

c. Solid Phase Bioassay:

11. Properties of the dredged material:

a. Solubility (% Water): 50.6

b. Density (gm/cc):

c. pH:

12. Method of release: THE SCOW RELEASES THE DREDGED MATERIAL THROUGH HYDRAULICALLY OPERATED DOORS UPON COMING TO A HALT AT THE DUMPING POINT.
13. Procedure and site for subsequent barge and hopper washing: NORMALLY, SCOWS ARE WASHED DOWN AT EITHER THE DREDGED OR DUMP SITE.
14. Approved dumping site:
  - a. Geographical position (latitude and longitude):  
42° 25.9 N  
70° 34.9 W
  - b. Depth of water (meters): 77
  - c. Distance from nearest coast: 18.3 KM
15. Additional information: THIS DUMP SITE IS SUBJECT TO MONITORING STUDIES UNDER THE DISPOSAL AREA MONITORING SYSTEM (DAMOS) PROGRAM. THE PROGRAM IS DESIGNED TO IDENTIFY AND EVALUATE IMPACTS RESULTING FROM THE DISPOSAL OF DREDGED MATERIALS AT DESIGNATED DUMP SITES. THE DAMOS PROGRAM CONTINUALLY CONTRIBUTES TO THE DEVELOPMENT OF NEW MONITORING METHODOLOGIES THAT REFLECT ON THE EFFICIENCY OF FIELD OBSERVATIONS AND LOGISTICS, AS WELL AS TIME.

THIS PROGRAM WAS DESIGNATED TO COMPLY WITH SECTIONS 228.9 AND 228.10 OF THE OCEAN DUMPING ACT RELATIVE TO DUMP SITE MONITORING AND THE EVALUATION OF DISPOSAL IMPACTS

IMCO DREDGED MATERIAL OCEAN DISPOSAL REPORTCY 1982

1. Issuing authority: USACE
2. Division New England      District N/A
3. Date issued: 14 JUNE 1982 (plus 1 day)
3. Country of origin of dredged material or other matter:  
United States of America, Massachusetts  
Port of loading (activity location): Mystic River
4. General description of dredged material, dredging, and transportation made:
  - a. Description: Organic silts, clay and till
  - b. Mode of dredging: Clamshell-bucket
  - c. Mode of transportation: COW
5. Form in which dredged material is presented for disposal: Saturated cohesive and non-cohesive material
6. Material quantity (volume in metric units, cubic meters) of material dumped in the ocean and dates of actual disposal during reporting calendar year.  
4956 m<sup>3</sup>      1 Sept - 14 Nov

7. Period for which permit is valid or project is scheduled:

Until 14 June 1992

8. Expected frequency of dumping:

1 scow per day

9. Chemical composition of the liquid phase of dredged material as described

in the 11 January 1977 Federal Register which contains the Environmental

Protection Agency's final regulations and criteria:

a. Liquid Phase test results: N/A

(1) Nutrients:

(2) Metals:

(3) Organics:

b. Other analyses: Bulk sediment

(1) Metals: Hg 0.16   Cu 84.83  
 (PPM) Cd 0.77   Ni 8.97  
 Pb 88.58   V 36.17  
 As 4.58  
 Cr 484.83

(2) Organics: PCB(PPB) 845.2  
 Oil & grease(%) 0.61

(3) Other: Vol Sol(%) 4.38

10. Bioassay and Bioassessment Evaluations:

- a. Liquid Phase Bioassay: No significant effect
- b. Suspend Particulate Phase Bioassay: No significant effect
- c. Solid Phase Bioassay: Some uptake of mercury

11. Properties of the dredged material:

- a. Solubility (% Water): 35.46
- b. Density (gm/cc):
- c. pH:

12. Method of release: THE SCOW RELEASES THE CHARGED MATERIAL THROUGH HYDRAULICALLY OPERATED DOORS UPON COMING TO A HALT AT THE DUMPING SITE.
13. Procedure and site for subsequent barge and hopper washing: NORMALLY, SCOW IS WASHED DOWN AT THE END OF THE HOPPER OR DUMP SITE.
14. Approved dumping site:
- Geographical position (latitude and longitude):  $42^{\circ} 25.9' N$   
 $070^{\circ} 34.9' W$
  - Depth of water (meters): 77 m
  - Distance from nearest coast: 18.3 Km
15. Additional information: THIS DUMP IS SUBJECT TO MONITORING STUDIES UNDER THE OCEANIC DATA PROCESSING SYSTEM (ODPS) PROGRAM. THE PROGRAM IS DESIGNED TO INTEGRATE AND EVALUATE IMPACTS RESULTANT FROM THE DISPOSAL OF DREDGED MATERIALS AT DESIGNATED DUMP SITES. THE DATA FROM THESE STUDIES CONTRIBUTE TO THE DEVELOPMENT OF NEW MARINE POLICY, REGULATIONS, MINT REQUESTS, AND OTHER INFORMATION CONCERNING LOGISTICS, AS WELL AS TIME.

THIS PROGRAM WAS DESIGNATED TO COMPLY WITH SECTIONS 223.9 AND 224.10 OF THE OCEAN DUMPING ACT RELATING TO ON-SITE MONITORING AND EVALUATION OF DISPOSING EMPHASIS.

IMCO DREDGED MATERIAL OCEAN DISPOSAL REPORTCY 1982

1. Issuing authority: USACE

Division: NEW ENGLAND District: N/A

2. Date issued: 30 June 1982 (82-218)

3. Country of origin of dredged material or other matter:

United States of America, Massachusetts

Port of loading (activity location): Mystic River, Boston, MA

4. General description of dredged material, dredging, and transportation

made:

a. Description: Clayey organic silt

b. Mode of dredging: Clamshell-bucket

c. Mode of transportation: Scow

5. Form in which dredged material is presented for disposal: Saturated cohesive and noncohesive material.

6. Material quantity (volume in metric units, cubic meters) of material dumped

in the ocean and dates of actual disposal during reporting calendar year.

8040 m<sup>3</sup> 16-20 September

7. Period for which permit is valid or project is scheduled:

Until 30 June 1992

8. Expected frequency of dumping:

1 scow/day

9. Chemical composition of the liquid phase of dredged material as described

in the 11 January 1977 Federal Register which contains the Environmental

Protection Agency's final regulations and criteria:

a. Liquid Phase test results:

N/A

(1) Nutrients:

(2) Metals:

(3) Organics:

b. Other analyses: N/A

(1) Metals:

(2) Organics:

(3) Other:

10. Bioassay and Bioassessment Evaluations:

- a. Liquid Phase Bioassay: No significant effect
- b. Suspend Particulate Phase Bioassay: No significant effect
- c. Solid Phase Bioassay: No significant effect except bioassay showed significant accumulation of petroleum hydrocarbons, PCB's and DDT

11. Properties of the dredged material:

- a. Solubility (% Water): N/A
- b. Density (gm/cc): N/A
- c. pH: N/A

12. Method of release: THE SCOW RELEASES THE DRENCHED MATERIAL THROUGH HYDRAULICALLY OPERATED DOORS UPON COMING TO A HALT AT THE DUMPING POINT

13. Procedure and site for subsequent barge and hopper washing: NORMALLY, SCOWS ARE WASHED DOWN AT EITHER THE DESIGNATED OR DUMP SITE

14. Approved dumping site:

a. Geographical position (latitude and longitude):

42° 25.9 N  
070° 34.9 W

b. Depth of water (meters): 77

c. Distance from nearest coast: 18.3 km

15. Additional information:

More contaminated material disposed in upland site.

THIS DUMP SITE IS SUBJECT TO MONITORING STUDIES UNDER THE DISPOSAL AREA MONITORING SYSTEM (DAMOS) PROGRAM. THE PROGRAM IS DESIGNED TO IDENTIFY AND EVALUATE IMPACTS RESULTING FROM THE DISPOSAL OF DREDGED MATERIALS AT DESIGNATED DUMP SITES. THE DAMOS PROGRAM CONTINUALLY CONTRIBUTES TO THE DEVELOPMENT OF NEW MONITORING METHODOLOGIES THAT ON THE LEFT SIDE OF FIELD DISCONTINUES AND LOGISTICS, AS WELL AS TIME.

This program was designated to comply with sections 2167 and 2168 of the ocean dumping act relative to dump site monitoring and the evaluation of disposal impacts.

IMCO DREDGED MATERIAL OCEAN DISPOSAL REPORTCY 19721. Issuing authority: USACEDivision New England District N/A2. Date issued: 10 September 1972 (82-222)3. Country of origin of dredged material or other matter:

United States of America, Massachusetts

Port of loading (activity location): Chelsea4. General description of dredged material, dredging, and transportationmade:a. Description: Sandy silts.b. Mode of dredging: clamshell-bucketc. Mode of transportation: scow5. Form in which dredged material is presented for disposal: Saturated cohesive and non cohesive material6. Material quantity (volume in metric units, cubic meters) of material dumped  
in the ocean and dates of actual disposal during reporting calendar year.21,351 m<sup>3</sup> 13 Sept - 3 October

7. Period for which permit is valid or project is scheduled:

Until 10 Sept 1992

8. Expected frequency of dumping:

1-2 scows/day

9. Chemical composition of the liquid phase of dredged material as described

in the 11 January 1977 Federal Register which contains the Environmental

Protection Agency's final regulations and criteria:

a. Liquid Phase test results:

(1) Nutrients:

(2) Metals:

(3) Organics:

b. Other analyses: Bulk Sediment  
Av 3 Stations

## (1) Metals: PPM

As	19	Pb	115
Cd	5.74	Ni	23
Cr	249	V	93
Cu	91	Zn	224
Hg	A4		

## (2) Organics:

PCB's (ppm) 0.28  
Oil & Grease (%) 2.65

## (3) Other:

10. Bioassay and Bioassessment Evaluations: Not Evaluated

a. Liquid Phase Bioassay:

b. Suspend Particulate Phase Bioassay:

c. Solid Phase Bioassay:

11. Properties of the dredged material: Not evaluated

a. Solubility (% Water):

b. Density (gm/cc):

c. pH:

12. Method of release: THE SCOW RELEASES THE DREDGED MATERIAL THROUGH HYDRAULICALLY OPERATED DOORS UPON COMING TO A HALT AT THE DUMPING POINT.
13. Procedure and site for subsequent barge and hopper washing: NORMALLY SCOWS ARE WASHED DOWN AT EITHER THE DISENGAGE OR DUMP SITE.
14. Approved dumping site:
- Geographical position (latitude and longitude):  
42° 25.9' N  
70° 34.9' W
  - Depth of water (meters): 77
  - Distance from nearest coast: 18.3 KM

15. Additional information:

THIS DUMP SITE IS SUBJECT TO MONITORING STUDIES UNDER THE DISPOSAL AREA MONITORING SYSTEM (DAMOS) PROGRAM. THE PROGRAM IS DESIGNED TO IDENTIFY AND EVALUATE IMPACTS RESULTING FROM THE DISPOSAL OF DREDGED MATERIALS AT DESIGNATED DUMP SITES. THE DAMOS PROGRAM CONTINUALLY CONTRIBUTES TO THE DEVELOPMENT OF NEW MONITORING METHODOLOGIES THAT REFLECT ON THE EFFICIENCY OF FIELD OBSERVATIONS AND LOGISTICS, AS WELL AS TIME.

THIS PROGRAM WAS DESIGNATED TO COMPLY WITH SECTIONS 228.9 AND 228.10 OF THE OCEAN DUMPING ACT RELATIVE TO DUMP SITE MONITORING AND THE EVALUATION OF DISPOSAL IMPACTS.

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INCO DREDGED MATERIAL OCEAN DISPOSAL REPORT

CY 1982

1. Issuing authority: USACE

Division NED      District N/A

2. Date issued: 23 Feb 1978

3. Country of origin of dredged material or other matter: United States  
of America, Massachusetts

Port of loading (activity location): Plymouth

4. General description of dredged material, dredging, and transportation  
made:

a. Description: Medium to fine sand.

b. Mode of dredging: Clamshell-bucket

c. Mode of transportation: Scow

5. Form in which dredged material is presented for disposal:

NON-COHESIVE

6. Material quantity (volume in metric units, cubic meters) of material dumped

in the ocean and dates of actual disposal during reporting calendar year.

13,811 m<sup>3</sup>

Oct 3 - Nov 23

7. Period for which permit is valid or project is scheduled:

Until 23 Feb 1988

8. Expected frequency of dumping:

1 Load per day

9. Chemical composition of the liquid phase of dredged material as described in the 11 January 1977 Federal Register which contains the Environmental Protection Agency's final regulations and criteria:

a. Liquid Phase test results: (Average of 6 sites)

(1) Nutrients:  
PPM Ammonia N .182.  
Total P 0.54

(2) Metals:  
(PPB) As <5 Pb 2.1 Zn 13  
Cd 10.6 Hg 0.2  
Cr 0.5 Ni 2.6  
Cu 6.4 V 4.5

(3) Organics:

b. Other analyses:

(1) Metals:  
 (PPM)      A      <.6  
               Cd      3.5  
               Cr      4.7  
               Pb      4.6  
               Hg      .008

(2) Organics: RBC's .01  
 (PPM) Oil & Grease 50

## (3) Other:

10. Bioassay and Bioassessment Evaluations: Not performed

- a. Liquid Phase Bioassay:
- b. Suspend Particulate Phase Bioassay:
- c. Solid Phase Bioassay:

11. Properties of the dredged material:

- a. Solubility (% Water):
- b. Density (gm/cc):
- c. pH:

12. Method of release: THE SCOW RELEASES THE DREDGED MATERIAL THROUGH HYDRAULICALLY OPERATED DOORS UPON COMING TO A HALT AT THE DUMPING POINT.
13. Procedure and site for subsequent barge and hopper washing: NORMALLY, SCOWS ARE WASHED DOWN AT EITHER THE DREDGE OR DUMP SITE.
14. Approved dumping site:
- Geographical position (latitude and longitude):  $42^{\circ} 25.9'$   
 $70^{\circ} 34.9'W$
  - Depth of water (meters): 70
  - Distance from nearest coast: 27 Km
15. Additional information: THIS DUMP SITE IS SUBJECT TO MONITORING. SECTION 228.1 OF THE OCEAN DUMPING ACT DESIGNATES THE USE OF THE CONTINUOUS OCEAN MONITORING SYSTEM (COMS) PROGRAM. THE PROGRAM IS DESIGNED TO ENSURE AND EVALUATE IMPACTS RELATED TO THE DISPOSAL OF DREDGED MATERIALS AT DESIGNATED DUMP SITES. THE COMS PROGRAM CONTINUALLY CONTRIBUTES TO THE DEVELOPMENT OF NEW MONITORING METHODOLOGIES THAT RELY ON THE EFFICIENCY OF FIELD OBSERVATIONS AND LOGISTICS, AS WELL AS TIME.
- THIS PROGRAM WAS DESIGNATED TO COMPLY WITH SECTIONS 228.9 AND 228.10 OF THE OCEAN DUMPING ACT RELATING TO DUMP SITE MONITORING AND THE EVALUATION OF DUMPING IMPACTS.

INCO DREDGED MATERIAL OCEAN DISPOSAL REPORTCY 1982

1. Issuing authority: USACE

Division NED

District N/A

2. Date issued: 18 Nov 1975, amended 25 Aug 1982 (75-263)

3. Country of origin of dredged material or other matter: United States of America, Massachusetts

Port of loading (activity location): Boston, MA

4. General description of dredged material, dredging, and transportation

made:

a. Description: Silts and Clays

b. Mode of dredging: Clamshell-bucket

c. Mode of transportation: Scow

5. Form in which dredged material is presented for disposal: SATURATED COHESIVE AND NON-COHESIVE MATERIAL

6. Material quantity (volume in metric units, cubic meters) of material dumped in the ocean and dates of actual disposal during reporting calendar year.

1913 m<sup>3</sup> 31 OCTOBER 1983

7. Period for which permit is valid or project is scheduled:

Until 18 Nov 1985

8. Expected frequency of dumping:

1 Load, 1 day only.

9. Chemical composition of the liquid phase of dredged material as described

in the 11 January 1977 Federal Register which contains the Environmental  
Protection Agency's final regulations and criteria:

a. Liquid Phase test results: Av. of 4 sites

(1) Nutrients:

(2) Metals:  
(PPM)      Hg    .007  
             Pb    0.33  
             Zn    0.06

(3) Organics:  
(PPM)      Vol Sol    4700  
             COD      65.3  
             Kjeldahl N    13.13  
             Oil & Grease    4.6

b. Other analyses:

(1) Metals:

(2) Organics:

(3) Other:

10. Bioassay and Bioassessment Evaluations: Not Performed

a. Liquid Phase Bioassay:

b. Suspend Particulate Phase Bioassay:

c. Solid Phase Bioassay:

11. Properties of the dredged material:

a. Solubility (% Water):

b. Density (gm/cc):

c. pH:

12. Method of release: THE SCOW RELEASES THE DREDGED MATERIAL THROUGH HYDRAULICALLY OPERATED DOORS UPON COMING TO HALT AT THE DUMPING POINT.
13. Procedure and site for subsequent barge and hopper washing: NORMALLY, SCOWS ARE WASHED DOWN AT EITHER THE DREDGING OR DUMP SITE.
14. Approved dumping site:
- Geographical position (latitude and longitude):  $42^{\circ} 25.9'N$   
 $070^{\circ} 34.9'W$
  - Depth of water (meters): 77 m
  - Distance from nearest coast: 18.3 Km
15. Additional information: THIS DUMP SITE IS SUBJECT TO MONITORING STUDIES UNDER THE DISPOSAL AREA MONITORING SYSTEM (DAMOS) PROGRAM. THE PROGRAM IS DESIGNED TO IDENTIFY AND EVALUATE IMPACTS RESULTING FROM THE DISPOSAL OF DREDGED MATERIALS AT DESIGNATED DUMP SITES. THE DAMOS PROGRAM CONTINUALLY CONTRIBUTES TO THE DEVELOPMENT OF NEW MONITORING METHODOLOGIES THAT REFLECT ON THE EFFICIENCY OF FIELD OBSERVATIONS AND LOGISTICS, AS WELL AS TIME.

THIS PROGRAM WAS DESIGNATED TO COMPLY WITH SECTIONS 228.9 AND 228.10 OF THE OCEAN DUMPING ACT RELATIVE TO DUMP SITE MONITORING AND THE EVALUATION OF DISPOSAL IMPACTS.

IMCO DREDGED MATERIAL OCEAN DISPOSAL REPORTCY 1982

1. Issuing authority: USACE

Division New England      District N/A

2. Date issued: 3 Nov 1982 (92-342)

3. Country of origin of dredged material or other matter:

United States of America, Massachusetts

Port of loading (activity location): Boston Harbor, Boston

4. General description of dredged material, dredging, and transportation made:

- a. Description:

Silty sand.

- b. Mode of dredging: Clamshell - bucket

- c. Mode of transportation: Scow

5. Form in which dredged material is presented for disposal: Saturated noncohesive material

6. Material quantity (volume in metric units, cubic meters) of material dumped

- in the ocean and dates of actual disposal during reporting calendar year.

12,232 m<sup>3</sup>    4 Nov - 11 Dec.

7. Period for which permit is valid or project is scheduled:

10 years

8. Expected frequency of dumping:

1 scow/day

9. Chemical composition of the liquid phase of dredged material as described in the 11 January 1977 Federal Register which contains the Environmental Protection Agency's final regulations and criteria:

a. Liquid Phase test results:

(1) Nutrients:

(2) Metals:

ppb	As <5	Hg <10	Zn 309
	Cd <20	Ni <6	
	Cr <3	Pb <100	
	Cu 6	V 7	

(3) Organics:

b. Other analyses: mg/kg

## (1) Metals:

As	33	Ni	30
Cd	2.3	Pb	354
Cr	132	V	51
Cu	144	Zn	333
Hg	3.2		

## (2) Organics:

PCB's (PPM dry wt)	0.48
% Oil & Grease	0.33

## (3) Other:

% vol sol	7.9
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10. Bioassay and Bioassessment Evaluations:

a. Liquid Phase Bioassay: Not performed

b. Suspend Particulate Phase Bioassay: Not performed

c. Solid Phase Bioassay: No significant survival difference. Uptake of Hg in one species

11. Properties of the dredged material:

a. Solubility (% Water): 53.1

b. Density (gm/cc):

c. pH:

12. Method of release: THE SCOW RELEASES THE DREDGED MATERIAL THROUGH HYDRAULICALLY OPERATED DOORS UPON COMING TO A HALT AT THE DUMPING POINT.
13. Procedure and site for subsequent barge and hopper washing: NORMALLY, SCOWS ARE WASHED DOWN IN EITHER THE BARGE OR HOPPER.
14. Approved dumping site:
- Geographical position (latitude and longitude):  
42° 1' N  
70° 34.9' W
  - Depth of water (meters): 77
  - Distance from nearest coast: 14.3 KM
15. Additional information: THIS DUMPSITE IS SUBJECT TO MONITORING STUDIES UNDER THE DREDGED & A MONITORING SYSTEM (DAMOS) PROGRAM. THE PROGRAM IS DESIGNED TO IDENTIFY AND EVALUATE IMPACTS RESULTING FROM THE DISPOSAL OF DREDGED MATERIALS AT DESIGNATED DUMP SITES. THE DAMOS PROGRAM INITIALLY CONTRIBUTES TO THE DEVELOPMENT OF NEW MONITORING METHODS AS THAT REFLECT IN THE CHANGING DREDGING OPERATIONS AND LOGISTICS, AS WELL AS TIME. THIS PROGRAM WAS DESIGNED TO COMPLY WITH SECTIONS 228.9 AND 228.10 OF THE OCEAN DUMPING ACT RELATIVE TO DUMP SITE MONITORING AND THE EVALUATION OF ENVIRONMENTAL IMPACTS.

IMCO Dredged Material Ocean Disposal Report  
CY 1982

1. Issuing authority:

Division North Atlantic      District New York

2. Date issued: 30 Dec 1981      Permit # 12225 Belcher Corp.

3. Country of origin of dredged material or other matter:

United States of America, New York

Port of Loading (activity location):

Kill Van Kull

4. General description of dredged material, dredging, and transportation made:

a. Description: Silty clay,

b. Mode of dredging: clamshell dredge; Weeks Dredging Co.

c. Mode of transportation: towed barge; 4400 cy capacity

5. Form in which dredged material is presented for disposal:

Slurry-noncohesive character.

6. Material quantity (volume in metric units, cubic meters) of material dumped in the ocean and dates of actual disposal during reporting calendar year.      37,200 cy = 28,442m<sup>3</sup>

7. Period for which permit is valid or project is scheduled:

Completed; disposal dates 8 Jan. 1982 - 12 February 1982

8. Expected frequency of dumping:

2 trips/week

9. Chemical composition of the liquid phase of dredged material as described in the 11 Jan 77 Federal Register which contains the Environmental Protection Agency's final regulations and criteria:

	elutriate (S.D.) ppb
PCB	0.15 (0.02)
DDT	<0.05 (-)
Hg	<0.2 (-)
Cd	<0.1 (-)

## **10. Bioassays and Bioassessment Evaluations**

a. Liquid Phase Bioassay (EC50 or LC50 for each test species) at 96 hours

<u>Skeletonema costatum</u>	72%
<u>Mysidopsis bahia</u>	100%
<u>Menidia menidia</u>	100%

b. Suspended Particulate Phase Bioassay (EC50 or LC50 per test species) @ 96

<u>Acartia tonsa</u>	29%
<u>Mysidopsis bahia</u>	100%
<u>Menidia menidia</u>	100%

c. Solid Phase Bioassay (% mortality difference with respect to control)

Palaemonetes pugio -1.0 Negative number indicates  
Mercenaria mercenaria 0 greater mortality in control  
Nereis sp. 0

(\* statistical significance, 95% confidence level)

## **11. Properties of the dredged material:**

a. Solubility: (% water): N/A (not available)

b. Density (gm/cc): N/A (not available)

c. 8% sand                  63% silt                  29% clay

12. Method of release: Immediate release from bottom opening doors

**13. Procedure and site for subsequent barge and hopper washing:**  
**Hoppers flushed at authorized disposal site.**

**14. Approval dumping site:**

a. Geographic position (latitude and longitude):

40°22' N (lat) 73°51' W (long)

b. Depth of water (meters): 20 meters

c. Distance from nearest coast: 9 Km

**15. Additional information:**

#### 10-day Bioaccumulation results (ppm):

PHC statistically significant in *Palaemonetes* (2.80), *Mercenaria* (0.32) and

Nereis (13.02). PCB " " in Nereis (0.19)  
Hg " " in Mercenaria (0.26)

100-100-100-2

IMCO Dredged Material Ocean Disposal Report  
CY 1982

1. Issuing authority:

Division North Atlantic

District New York

2. Date issued: March 4, 1975

Permit # 9172 Caddell Dry Dock

3. Country of origin of dredged material or other matter:

United States of America, New York

Port of Loading (activity location):

Kill Van Kull

4. General description of dredged material, dredging, and transportation made:

a. Description: Silty clay,

b. Mode of dredging: clamshell dredge; Great Lakes Dredge & Dock

c. Mode of transportation: towed barge; 3600 cy capacity

5. Form in which dredged material is presented for disposal:

Slurry-noncohesive character.

6. Material quantity (volume in metric units, cubic meters) of material dumped in the ocean and dates of actual disposal during reporting calendar year.

36,000 cy=27,524 m<sup>3</sup>

7. Period for which permit is valid or project is scheduled:

Disposal dates 8-18 Jan 82; completed

8. Expected frequency of dumping:

1 trip/day

9. Chemical composition of the liquid phase of dredged material as described in the 11 Jan 77 Federal Register which contains the Environmental Protection Agency's final regulations and criteria:

site H<sub>2</sub>O (S.D.) Elutriate (S.D.)

PCB <0.1 (-) 0.12 (0.03)

DDT <0.05(-) <0.05(-)

Hg <0.01 (-) 0.130 (0.017)\*

Cd <0.2 (-) <0.20 (-)

\* statistically significant

**10. Bioassays and Bioassessment Evaluations**

a. Liquid Phase Bioassay (EC50 or LC50 for each test species) at 96 hours

<u>Skeletonema costatum</u>	99%
<u>Mysidopsis bahia</u>	> 100%
<u>Menidia menidia</u>	> 100%

b. Suspended Particulate Phase Bioassay (EC50 or LC50 per test species) @

<u>Acartia tonsa</u>	> 100%
<u>Mysidopsis bahia</u>	> 100%
<u>Menidia menidia</u>	> 100%

c. Solid Phase Bioassay (% mortality difference with respect to control)

<u>Palaemonetes pugio</u>	-2.0%	negative number indicates greater mortality in control
<u>Mercenaria mercenaria</u>	-3.0%	
<u>Nereis</u> sp.	1.0%	

(\* statistical significance, 95% confidence level)

**11. Properties of the dredged material:**

a. Solubility: (% water): 43.0%

b. Density (gm/cc): N/A (not available)

c. % sand 7.5      71.0% silt      21.5 % clay

**12. Method of release: Immediate release from bottom opening doors**

**13. Procedure and site for subsequent barge and hopper washing:  
Hoppers flushed at authorized disposal site.**

**14. Approval dumping site:**

a. Geographic position (latitude and longitude):

40°22' N (lat) 73°51'W (long)

b. Depth of water (meters): 20 meters

c. Distance from nearest coast: 9 Km

**15. Additional information:**

10-day Bioaccumulation results (ppm):

PHC in Nereis was 1.55 (ppm) \*

PCB in Nereis was 0.06 (ppm)\*

\*statistically significant

IMCO Dredged Material Ocean Disposal Report  
CY 1982

1. Issuing authority:

Division North Atlantic      District New York

2. Date issued: Jan. 21, 1976      Permit #9575 Caddell Dry Dock

3. Country of origin of dredged material or other matter:

United States of America, New York

Port of Loading (activity location):

Kill Van Kull

4. General description of dredged material, dredging, and transportation made:

a. Description: Silty clay,

b. Mode of dredging: clamshell dredge; Great Lakes Dredge & Dock

c. Mode of transportation: towed barge; 3600 cy capacity

5. Form in which dredged material is presented for disposal:

Slurry-noncohesive character.

6. Material quantity (volume in metric units, cubic meters) of material dumped in the ocean and dates of actual disposal during reporting calendar year.

18,000 cy = 13,762 m<sup>3</sup>

7. Period for which permit is valid or project is scheduled:

13-16  
Dispsoal dates/January 1982; completed

8. Expected frequency of dumping:

1 trip/day

9. Chemical composition of the liquid phase of dredged material as described in the 11 Jan 77 Federal Register which contains the Environmental Protection Agency's final regulations and criteria:

No elutriate and site water analysis

**10. Bioassays and Bioassessment Evaluations**

a. Liquid Phase Bioassay (EC50 or LC50 for each test species) at 96 hours

<u>Skeletonema costatum</u>	> 100%
<u>Mysidopsis bahia</u>	> 100%
<u>Menidia menidia</u>	>100%

b. Suspended Particulate Phase Bioassay (EC50 or LC50 per test species) @ 96 hours

<u>Skeletonema costatum</u>	24%
<u>Acartia tonsa</u>	
<u>Mysidopsis bahia</u>	> 100%
<u>Menidia menidia</u>	> 100%

c. Solid Phase Bioassay (% mortality difference with respect to control).

<u>Mysidopsis bahia</u>	-6%
<u>Palaemonetes hoyorum</u>	
<u>Mercenaria mercenaria</u>	-4%
<u>Nereis sp.</u>	1%

negative number indicate  
greater mortality in  
control

(\* statistical significance, 95% confidence level)

**11. Properties of the dredged material:**

a. Solubility: (% water): 59.2%

b. Density (gm/cc): N/A (Not Available)

c. % sand 29.0                   % silt 47.1                   23.9% clay

**12. Method of release:** Immediate release from bottom opening doors

**13. Procedure and site for subsequent barge and hopper washing:**  
Hoppers flushed at authorized disposal site.

**14. Approval dumping site:**

a. Geographic position (latitude and longitude):  
40°22' N (lat) 73°51'W (long)

b. Depth of water (meters): 20meters

c. Distance from nearest coast: 9 Km

**15. Additional information:**

No bioaccumulation testing conducted.

IMCO Dredged Material Ocean Disposal Report  
CY 1982

1. Issuing authority:

Division North Atlantic      District New York

2. Date issued: Dec 6, 1974      Permit # 9093 Amerada Hess

3. Country of origin of dredged material or other matter:

United States of America, New York

Port of Loading (activity location):

Arthur Kill

4. General description of dredged material, dredging, and transportation made:

a. Description: Silty clay,

b. Mode of dredging: clamshell dredge; Weeks Dredging Co.

c. Mode of transportation: towed barge; 4000 cy capacity

5. Form in which dredged material is presented for disposal:

Slurry-noncohesive character.

6. Material quantity (volume in metric units, cubic meters) of material dumped in the ocean and dates of actual disposal during reporting calendar year.

23,300 cy = 17,814 m<sup>3</sup>

7. Period for which permit is valid or project is scheduled:

14-24  
Completed; disposal dates Feb. 1982

8. Expected frequency of dumping:

1 trip/day

9. Chemical composition of the liquid phase of dredged material as described in the 11 Jan 77 Federal Register which contains the Environmental Protection Agency's final regulations and criteria:

<u>Elutriate</u> (S.D.)	ppb
PHC	<50. (-)
PCB	<0.1 (-)
DDT	<0.05 (-)
Hg	<0.2 (-)
Cd	<0.1 (-)

**10. Bioassays and Bioassessment Evaluations**

a. Liquid Phase Bioassay (EC50 or LC50 for each test species) at 96 hours

<u>Skeletonema costatum</u>	> 100%
<u>Mysidopsis bahia</u>	30%
<u>Menidia menidia</u>	> 100%

b. Suspended Particulate Phase Bioassay (EC50 or LC50 per test species) @ 96

<u>Acartia tonsa</u>	> 100%
<u>Mysidopsis bahia</u>	> 100%
<u>Menidia menidia</u>	> 100%

c. Solid Phase Bioassay (% mortality difference with respect to reference)

<u>Palaemonetes pugio</u>	5.3%
<u>Mercenaria mercenaria</u>	1.0%
<u>Nereis sp.</u>	-3.0%

negative number indicates  
greater mortality in reference

(\* statistical significance, 95% confidence level)

**11. Properties of the dredged material:**

a. Solubility: (% water): 37.3%

b. Density (gm/cc): N/A (not available)

c. % sand 57.7                    29.5% silt                    12.8% clay

**12. Method of release: Immediate release from bottom opening doors**

**13. Procedure and site for subsequent barge and hopper washing:  
Hoppers flushed at authorized disposal site.**

**14. Approval dumping site:**

a. Geographic position (latitude and longitude):  
 $40^{\circ}22' \text{ N}$  (lat)  $73^{\circ}51' \text{ W}$  (long)

b. Depth of water (meters): 20 meters

c. Distance from nearest coast: 9 Km

**15. Additional information:**

10 day bioaccumulation:

PHC was statistically significant in Mercenaria (0.164 ppm )

F-1

IMCO Dredged Material Ocean Disposal Report  
CY 1982

1. Issuing authority:

Division North Atlantic      District New York

2. Date issued: August 13, 1975      Permit # 9372 Port Authority NY/NJ

3. Country of origin of dredge material or other matter:

United States of America, New York

Port of Loading (activity location):

Hudson River

4. General description of dredged material, dredging, and transportation made:

a. Description: Silty clay,

b. Mode of dredging: clamshell dredge ; Weeks Dredging Co.

c. Mode of transportation: towed barge; 2200 cy capacity.

5. Form in which dredged material is presented for disposal:

Slurry-noncohesive character.

6. Material quantity (volume in metric units, cubic meters) of material dumped in the ocean and dates of actual disposal during reporting calendar year.

360,000 cy = 275,238 m<sup>3</sup>

7. Period for which permit is valid or project is scheduled:

25      20

Disposal dates Feb 82 - May 82; completed

8. Expected frequency of dumping:

1 trip /day

9. Chemical composition of the liquid phase of dredged material as described in the 11 Jan 77 Federal Register which contains the Environmental Protection Agency's final regulations and criteria:

<u>Elutriate (S.D.)</u>	<u>ppb</u>
PCB	< 0.1 (-)
DDT	< 0.05 (-)
Hg	< 0.2 (-)
Cd	< 0.1 (-)

**10. Bioassays and Bioassessment Evaluations**

a. Liquid Phase Bioassay (EC50 or LC50 for each test species) at 96 hours

<u>Skeletonema costatum</u>	100%
<u>Mysidopsis bahia</u>	100%
<u>Menidia menidia</u>	87%

b. Suspended Particulate Phase Bioassay (EC50 or LC50 per test species) @ 96

<u>Acartia tonsa</u>	27%
<u>Mysidopsis bahia</u>	100%
<u>Menidia menidia</u>	100%

c. Solid Phase Bioassay (% mortality difference with respect to control)

<u>Palaemonetes pugio</u>	-0.5	negative number indicate greater mortality in control
<u>Mercenaria mercenaria</u>	-1.0	
<u>Nereis</u> sp.	2.0	

(\* statistical significance, 95% confidence level)

**11. Properties of the dredged material:**

a. Solubility: (% water): 63.8%

b. Density (gm/cc): N/A (Not Available)

c. % sand 11.3                   % silt 63.0                   % clay 25.7

**12. Method of release:** Immediate release from bottom opening doors

**13. Procedure and site for subsequent barge and hopper washing:**  
Hoppers flushed at authorized disposal site.

**14. Approval dumping site:**

a. Geographic position (latitude and longitude):

40°22' N (lat) 73°51'W (long)

b. Depth of water (meters): 20 meters

c. Distance from nearest coast: 9 Km

**15. Additional information:**

10-day bioaccumulation data (ppm):

PHC were statistically significant in Palaemonetes (0.27)

Mercenaria (0.271) and Nereis (0.227)

PCB was statistically significant in Mercenaria (0.087)

IMCO Dredged Material Ocean Disposal Report  
CY 1982

1. Issuing authority:

Division North Atlantic

District New York

2. Date issued: Feb 25, 1982

Permit # 12297 Union Dry Dock

3. Country of origin of dredged material or other matter:

United States of America, New York

Port of Loading (activity location):

Hudson River

4. General description of dredged material, dredging, and transportation made:

a. Description: Silty clay,

b. Mode of dredging: clamshell dredge; Weeks Dredging Co.

c. Mode of transportation: towed barge, 4400 cy capacity.

5. Form in which dredged material is presented for disposal:

Slurry-noncohesive character.

6. Material quantity (volume in metric units, cubic meters) of material dumped in the ocean and dates of actual disposal during reporting calendar year.

46,000 cy = 35,169m<sup>3</sup>

7. Period for which permit is valid or project is scheduled:

1-11  
disposal dates / March 82; completed

8. Expected frequency of dumping:

1 trip/day

9. Chemical composition of the liquid phase of dredged material as described in the 11 Jan 77 Federal Register which contains the Environmental Protection Agency's final regulations and criteria:

	<u>site water</u> (S.D.)	<u>elutriate</u> (S.D.)	ppb
oil and grease	0.05 (-)	0.05 (-)	
PCB	< 0.1 (-)	< 0.1 (-)	
DDT	< 0.1 (-)	0.1 (-)	
Hg	1.1 (0.35)	< 0.2 (-)	
Cd	< 0.1 (-)	< 0.1 (-)	

10. Bioassays and Bioassessment Evaluationsa. Liquid Phase Bioassay (EC50 or LC50 for each test species) at 96 hours

<u>Skeletonema costatum</u>	65%
<u>Mysidopsis bahia</u>	> 100%
<u>Menidia menidia</u>	> 100%

b. Suspended Particulate Phase Bioassay (EC50 or LC50 per test species) @ 96

<u>Acartia tonsa</u>	78%
<u>Mysidopsis bahia</u>	83%
<u>Menidia menidia</u>	> 100%

c. Solid Phase Bioassay (% mortality difference with respect to control).

<u>Palaemonetes pugio</u>	0.0	
<u>Mercenaria mercenaria</u>	1.0%	Not statistically significant
<u>Nereis</u> sp.	2.0%	

( \* statistical significance, 95% confidence level)

11. Properties of the dredged material:a. Solubility: (% water): 60.6%b. Density (gm/cc): N/A (Not Available)

c. % sand 12.72                   % silt 53.20                   % clay 34.08

12. Method of release: Immediate release from bottom opening doors13. Procedure and site for subsequent barge and hopper washing:  
Hoppers flushed at authorized disposal site.14. Approval dumping site:a. Geographic position (latitude and longitude):

40°22' N (lat) 73°51'W (long)

b. Depth of water (meters): 20 metersc. Distance from nearest coast: 9 Km15. Additional information:

10 day bioaccumulation data (ppm):

PHC was statistically significant in Palaemonetes(0.20) and Nereis (0.73)PCB was statistically significant in Nereis (0.078)

1-10

IMCO Dredged Material Ocean Disposal Report  
CY 1982

**1. Issuing authority:**

Division North Atlantic      District New York      New York City Department

of Environmental  
Protection

2. Date issued: Jan. 7, 1982

Permit #12238

**3. Country of origin of dredged material or other matter:**

United States of America, New York

**Port of Loading (activity location):**

East River

**4. General description of dredged material, dredging, and transportation made:**

a. Description: Silty clay,

b. Mode of dredging: clamshell dredge; Great Lakes Dredge & Dock

c. Mode of transportation: towed barge; 3600 cy capacity

**5. Form in which dredged material is presented for disposal:**

Slurry-noncohesive character.

**6. Material quantity (volume in metric units, cubic meters) of material dumped in the ocean and dates of actual disposal during reporting calendar year.**

14,400 cy = 11,010 m<sup>3</sup>

**7. Period for which permit is valid or project is scheduled:**

26-27 March 1982; completed

**8. Expected frequency of dumping:**

2 trips/day

**9. Chemical composition of the liquid phase of dredged material as described in the 11 Jan 77 Federal Register which contains the Environmental Protection Agency's final regulations and criteria:**

Site water (SD)	Elutriate (SD)	ppb
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PCB 0.107 (0.006)	0.123 (0.015)	
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DDT <0.05 (-)	< 0.05 (-)	
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Hg <0.2 (-)	0.267 (0.029)*	
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Cd 1.57 (0.12)	1.93 (0.12)*	
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\*statistically significant

10. Bioassays and Bioassessment Evaluationsa. Liquid Phase Bioassay (EC50 or LC50 for each test species) at 96 hours

<u>Skeletonema costatum</u>	71%
<u>Mysidopsis bahia</u>	> 100%
<u>Menidia menidia</u>	> 100%

b. Suspended Particulate Phase Bioassay (EC50 or LC50 per test species) @ 96

<u>Acartia tonsa</u>	64%
<u>Mysidopsis bahia</u>	> 100%
<u>Menidia menidia</u>	> 100%

c. Solid Phase Bioassay (% mortality difference with respect to control)

<u>Palaemonetes pugio</u>	0	Not statistically significant
<u>Mercenaria mercenaria</u>	0	
<u>Nereis sp.</u>	0	

(\* statistical significance, 95% confidence level)

11. Properties of the dredged material:

a. Solubility: (% water): 68.0%

b. Density (gm/cc): N/A (not available)

c. % sand 6.0                   % silt 67.0                   % clay 27.0

12. Method of release: Immediate release from bottom opening doors13. Procedure and site for subsequent barge and hopper washing:  
Hoppers flushed at authorized disposal site.14. Approval dumping site:

a. Geographic position (latitude and longitude):

40°22' N (lat) 73°51'W (long)

b. Depth of water (meters): 20 meters

c. Distance from nearest coast: 9 Km

15. Additional information:

10-day bioaccumulation (ppm):

PHC was statistically significant in Palaemonetes (2.74),

Mercenaria (0.43) and Nereis (15.013)

PCB was statistically significant in Nereis (0.201)

Cd was statistically significant in Nereis (0.284)

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IMCO Dredged Material Ocean Disposal Report  
CY 1982

1. Issuing authority:

Division North Atlantic

District New York

2. Date issued: June 5, 1981

Permit # 11945 Perth Amboy Dry Dock

3. Country of origin of dredged material or other matter:

United States of America, New York

Port of Loading (activity location):

Arthur Kill

4. General description of dredged material, dredging, and transportation made:

a. Description: Silty clay,

b. Mode of dredging: clamshell dredge; Great Lakes Dredge & Dock

c. Mode of transportation: towed barge; 3600 cy capacity

5. Form in which dredged material is presented for disposal:

Slurry-noncohesive character.

6. Material quantity (volume in metric units, cubic meters) of material dumped in the ocean and dates of actual disposal during reporting calendar year. 18,000 cy = 13,762m<sup>3</sup>

7. Period for which permit is valid or project is scheduled:

Disposal dates 29-30 March 1982; completed

8. Expected frequency of dumping:

2 trips/day

9. Chemical composition of the liquid phase of dredged material as described in the 11 Jan 77 Federal Register which contains the Environmental Protection Agency's final regulations and criteria:

	Site Water (S.D.)	Elutriate (S.D.)	ppb
PHC	<100. (-)	<100. (-)	
PCB	<0.01 (-)	<0.01 (-)	
DDT	<0.05 (-)	<0.05 (-)	
Hg	<0.2 (-)	<0.2 (-)	
Cd	<0.10 (-)	<0.10 (-)	

P-21 pg. 4 of 2

**10. Bioassays and Bioassessment Evaluations**

a. Liquid Phase Bioassay (EC50 or LC50 for each test species) at 96 hours

<u>Skeletonema costatum</u>	82%
<u>Mysidopsis bahia</u>	> 100%
<u>Menidia menidia</u>	> 100%

b. Suspended Particulate Phase Bioassay (EC50 or LC50 per test species) @ 96

<u>Acartia tonsa</u>	34%
<u>Mysidopsis bahia</u>	> 100%
<u>Menidia menidia</u>	> 100%

c. Solid Phase Bioassay (% mortality difference with respect to control)

<u>Palaemonetes pugio</u>	4.0%	Not statistically significant
<u>Mercenaria mercenaria</u>	1.0%	
<u>Nereis sp.</u>	1.0%	

(\* statistical significance, 95% confidence level)

**11. Properties of the dredged material:**

a. Solubility: (% water): 64.2%

b. Density (gm/cc): N/S (Not Available)

c. % sand 44.2 % silt 40.8 % clay 15.0

**12. Method of release: Immediate release from bottom opening doors**

**13. Procedure and site for subsequent barge and hopper washing:  
Hoppers flushed at authorized disposal site.**

**14. Approval dumping site:**

a. Geographic position (latitude and longitude):

40°22' N (lat) 73°51'W (long)

b. Depth of water (meters): 20 meters

c. Distance from nearest coast: 9 Km

**15. Additional information:**

10-day bioaccumulation data (ppm):

PHC was statistically significant in Nereis (1.981)

IMCO Dredged Material Ocean Disposal Report  
CY 1982

1. Issuing authority:

Division North Atlantic      District New York

2. Date issued: May 6, 1980      Permit # 11392 Jackson Engineering

3. Country of origin of dredged material or other matter:

United States of America, New York

Port of Loading (activity location):

Kill Van Kull

4. General description of dredged material, dredging, and transportation made:

a. Description: Silty clay,

b. Mode of dredging: clamshell dredge; Great Lakes Dredge & Dock

c. Mode of transportation: towed barge; two types: 3000 and 3500 cy capacity

5. Form in which dredged material is presented for disposal:

Slurry-noncohesive character.

6. Material quantity (volume in metric units, cubic meters) of material dumped in the ocean and dates of actual disposal during reporting calendar year.

45,000 cy = 34,405m<sup>3</sup>

7. Period for which permit is valid or project is scheduled:

disposal dates 30 March - 2 April and 25 June - 8 July 1982; Completed

8. Expected frequency of dumping:

2 trips/day

9. Chemical composition of the liquid phase of dredged material as described in the 11 Jan 77 Federal Register which contains the Environmental Protection Agency's final regulations and criteria:

Elutriate	(S.D.)	ppb
Hg	0.30	(0)
Cd	0.33	(0.02)
PCB	0.27	(0.07)
DDT	0.05	(0)

**10. Bioassays and Bioassessment Evaluations**

a. Liquid Phase Bioassay (EC50 or LC50 for each test species) at 96 hours

<u>Skeletonema costatum</u>	60%
<u>Mysidopsis bahia</u>	<100%
<u>Menidia menidia</u>	<100%

b. Suspended Particulate Phase Bioassay (EC50 or LC50 per test species) @ 96

<u>Acartia tonsa</u>	45%
<u>Mysidopsis bahia</u>	< 100%
<u>Menidia menidia</u>	< 100%

c. Solid Phase Bioassay (% mortality difference with respect to control)

<u>Palaemonetes pugio</u>	0	Not statistically significant
<u>Mercenaria mercenaria</u>	0	
<u>Nereis</u> sp.	0	

(\* statistical significance, 95% confidence level)

**11. Properties of the dredged material:**

a. Solubility: (% water): 69.0%

b. Density (gm/cc): N/A (Not Available)

c. % sand 12.2                           % silt 69.8                           % clay 18.0

**12. Method of release:** Immediate release from bottom opening doors

**13. Procedure and site for subsequent barge and hopper washing:**  
Hoppers flushed at authorized disposal site.

**14. Approval dumping site:**

a. Geographic position (latitude and longitude):

40°22' N (lat) 73°51'W (long)

b. Depth of water (meters): 20meters

c. Distance from nearest coast: 9 Km

**15. Additional information:**

10-day bioaccumulation data (ppm): PHC was statistically significant in Palaemonetes(0.18) in Nereis (14.28) and Mercenaria (2.36). PCB was statistically significant in Nereis (0.19).

1.2.2

IMCO Dredged Material Ocean Disposal Report  
CY 1982

1. Issuing authority:

Division North Atlantic

District New York

2. Date issued: Dec. 11, 1981      Permit # 12198      New York City Dept. of Sanitation

3. Country of origin of dredged material or other matter:

United States of America, New York

Port of Loading (activity location):

East River

4. General description of dredged material, dredging, and transportation made:

a. Description: Silty clay,

b. Mode of dredging: clamshell dredge; Gates Construction Co.

c. Mode of transportation: towed barge; 1800 cy capacity

5. Form in which dredged material is presented for disposal:

Slurry-noncohesive character.

6. Material quantity (volume in metric units, cubic meters) of material dumped in the ocean and dates of actual disposal during reporting calendar year.

1,800 cy = 1,376 m<sup>3</sup>

7. Period for which permit is valid or project is scheduled:

disposal date 14 May 82; completed

8. Expected frequency of dumping:

1 trip

9. Chemical composition of the liquid phase of dredged material as described in the 11 Jan 77 Federal Register which contains the Environmental Protection Agency's final regulations and criteria:

	Elutriate (S.D.) ppb
PCB	<0.10 (-)
DDT	<0.05 (-)
Hg	0.37 (0.06)
Cd	0.30 (0)
PHC	<100. (-)

**10. Bioassays and Bioassessment Evaluations****a. Liquid Phase Bioassay (EC50 or LC50 for each test species) at 96 hours**

<u>Skeletonema costatum</u>	> 100%
<u>Mysidopsis bahia</u>	> 100%
<u>Menidia menidia</u>	51%

**b. Suspended Particulate Phase Bioassay (EC50 or LC50 per test species) @ 96**

<u>Acartia tonsa</u>	36%
<u>Mysidopsis bahia</u>	> 100%
<u>Menidia menidia</u>	47%

**c. Solid Phase Bioassay (% mortality difference with respect to control)**

<u>Palaemonetes pugio</u>	0.8%	Not statistically significant.
<u>Mercenaria mercenaria</u>	3.0%	
<u>Nereis sp.</u>	1.0%	

( \* statistical significance, 95% confidence level )

**11. Properties of the dredged material:****a. Solubility: (% water):** 72.4%**b. Density (gm/cc):** N/A (Not Available)**c. % sand** 19.6      **% silt** 51.8      **% clay** 28.6**12. Method of release:** Immediate release from bottom opening doors**13. Procedure and site for subsequent barge and hopper washing:**  
Hoppers flushed at authorized disposal site.**14. Approval dumping site:****a. Geographic position (latitude and longitude):**  
40°22' N (lat) 73°51'W (long)**b. Depth of water (meters):** 20 meters**c. Distance from nearest coast:** 9 Km**15. Additional information:**

10-day bioaccumulation results (ppm):

Cd was statistically significant in Palaemonetes (0.57).

FEDERAL REGISTER

IMCO Dredged Material Ocean Disposal Report  
CY 1982

1. Issuing authority:

Division North Atlantic      District New York

2. Date issued: Sept. 25, 1981      Permit # 12094      New York City Department of Sanitation

3. Country of origin of dredged material or other matter:

United States of America, New York

Port of Loading (activity location):

Newtown Creek (East River)

4. General description of dredged material, dredging, and transportation made:

a. Description: Silty clay,

b. Mode of dredging: clamshell dredge; Gates Construction Co.

c. Mode of transportation: towed barge; 1800 cy capacity.

5. Form in which dredged material is presented for disposal:

Slurry-noncohesive character.

6. Material quantity (volume in metric units, cubic meters) of material dumped in the ocean and dates of actual disposal during reporting calendar year.

3,600 cy = 2,752m<sup>3</sup>

7. Period for which permit is valid or project is scheduled:

Disposal dates 27 May and 12 June 1982; completed

8. Expected frequency of dumping:

1 Trip/day

9. Chemical composition of the liquid phase of dredged material as described in the 11 Jan 77 Federal Register which contains the Environmental Protection Agency's final regulations and criteria:

Elutriate (S.D.)      ppb.

PHC < 100. (-)

PCB < 0.1 (-)

DDT < 0.05 (-)

Hg 0.47 (0.06)

Cd 0.47 (0.06)

10. Bioassays and Bioassessment Evaluationsa. Liquid Phase Bioassay (EC50 or LC50 for each test species) at 96 hours

<u>Skeletonema costatum</u>	> 100%
<u>Mysidopsis bahia</u>	> 100%
<u>Menidia menidia</u>	76%

b. Suspended Particulate Phase Bioassay (EC50 or LC50 per test species) @ 96

<u>Acartia tonsa</u>	42%
<u>Mysidopsis bahia</u>	> 100%
<u>Menidia menidia</u>	63%

c. Solid Phase Bioassay (% mortality difference with respect to control)

<u>Palaemonetes pugio</u>	4.0%	
<u>Mercenaria mercenaria</u>	1.0%	Not statistically
<u>Nereis</u> sp.	4.0%	significant

( \* statistical significance, 95% confidence level )

11. Properties of the dredged material:a. Solubility: (% water): 69.0%b. Density (gm/cc): N/A (Not Available)

c. % sand 43% % silt 40% % clay 17%

12. Method of release: Immediate release from bottom opening doors13. Procedure and site for subsequent barge and hopper washing:  
Hoppers flushed at authorized disposal site.14. Approval dumping site:a. Geographic position (latitude and longitude):  
40°22' N (lat) 73°51'W (long)b. Depth of water (meters): 20 metersc. Distance from nearest coast: 9 Km15. Additional information: 10-day Bioaccumulation data (ppm):PCB was statistically significant in Mercenaria (0.069)

IMCO Dredged Material Ocean Disposal Report  
CY 1982

1. Issuing authority:

Division North Atlantic

District New York

N.Y.C. Dept. of

2. Date issued: Dec. 31, 1980

Permit # 11705 Ports & Terminals

3. Country of origin of dredged material or other matter:

United States of America, New York

Port of Loading (activity location):

Hudson River

4. General description of dredged material, dredging, and transportation made:

a. Description: Silty clay,

b. Mode of dredging: clamshell dredge; Weeks Dredging Co.

c. Mode of transportation: towed barge; 4000 cy capacity

5. Form in which dredged material is presented for disposal:

Slurry-noncohesive character.

6. Material quantity (volume in metric units, cubic meters) of material dumped in the ocean and dates of actual disposal during reporting calendar year.

52,400 cy = 40,062m<sup>3</sup>

7. Period for which permit is valid or project is scheduled:

Disposal dates 7 -13 June 1982; completed

8. Expected frequency of dumping:

2 trips/day

9. Chemical composition of the liquid phase of dredged material as described in the 11 Jan 77 Federal Register which contains the Environmental Protection Agency's final regulations and criteria:

Site Water (S.D.)	ppb
PHC	<100. (-)
PCB	<0.2 (-)
DDT	<0.05 (-)
Hg	0.30 (o)
Cd	0.33 (o)

10. Bioassays and Bioassessment Evaluationsa. Liquid Phase Bioassay (EC50 or LC50 for each test species) at 96 hours

<u>Skeletonema costatum</u>	34%
<u>Mysidopsis bahia</u>	58%
<u>Menidia menidia</u>	21%

b. Suspended Particulate Phase Bioassay (EC50 or LC50 per test species) @ 96

<u>Acartia tonsa</u>	26%
<u>Mysidopsis bahia</u>	30%
<u>Menidia menidia</u>	27%

c. Solid Phase Bioassay (% mortality difference with respect to control)

<u>Palaemonetes pugio</u>	- 3.2%	Negative number indicates greater mortality in control.
<u>Mercenaria mercenaria</u>	1.0%	
<u>Nereis</u> sp.	6.0%	

(\* statistical significance, 95% confidence level)

11. Properties of the dredged material:a. Solubility: (% water): N/A (Not Available)b. Density (gm/cc): N/A (Not Available)

c. % sand 11.76 % silt 57.32 % clay 30.92

12. Method of release: Immediate release from bottom opening doors13. Procedure and site for subsequent barge and hopper washing:  
Hoppers flushed at authorized disposal site.14. Approval dumping site:a. Geographic position (latitude and longitude):

40°22' N (lat) 73°51'W (long)

b. Depth of water (meters): 20 metersc. Distance from nearest coast: 9 Km15. Additional information:

The 10-day bioaccumulation test showed no statistically significant values.

IMCO Dredged Material Ocean Disposal Report  
CY 1982

1. Issuing authority:

Division North Atlantic      District New York

2. Date issued: Jan. 15, 1976      Permit # 9571 City Wide Services

3. Country of origin of dredged material or other matter:

United States of America, New York

Port of Loading (activity location):

Arthur Kill

4. General description of dredged material, dredging, and transportation made:

a. Description: Silty clay,

b. Mode of dredging: clamshell dredge; Great Lakes Dredge & Dock

c. Mode of transportation: towed barge; 3600 cy capacity

5. Form in which dredged material is presented for disposal:

Slurry-noncohesive character.

6. Material quantity (volume in metric units, cubic meters) of material dumped in the ocean and dates of actual disposal during reporting calendar year.

21,600 cy = 16, 514 m<sup>3</sup>

7. Period for which permit is valid or project is scheduled:

25-27

disposal dates/June 1982; completed

8. Expected frequency of dumping:

2 trips/day

9. Chemical composition of the liquid phase of dredged material as described in the 11 Jan 77 Federal Register which contains the Environmental Protection Agency's final regulations and criteria:

elutriate (S.D.) ppb

PHC <50(-)

PCB < 0.10(-)

DDT < 0.05(-)

Hg < 0.2 (-)

Cd < 0.1 (-)

**10. Bioassays and Bioassessment Evaluations****a. Liquid Phase Bioassay (EC50 or LC50 for each test species) at 96 hours**

<u>Skeletonema costatum</u>	> 100%
<u>Mysidopsis bahia</u>	28%
<u>Menidia menidia</u>	91%

**b. Suspended Particulate Phase Bioassay (EC50 or LC50 per test species) @ 96**

<u>Acartia tonsa</u>	26%
<u>Mysidopsis bahia</u>	33%
<u>Menidia menidia</u>	64%

**c. Solid Phase Bioassay (% mortality difference with respect to reference)**

<u>Palaemonetes pugio</u>	6.7%
<u>Mercenaria mercenaria</u>	-1.0%
<u>Nereis</u> sp.	3.0%

negative number indicates  
greater mortality in  
reference

(\* statistical significance, 95% confidence level)

**11. Properties of the dredged material:**

a. Solubility: (% water): 73.6%

b. Density (gm/cc): N/A (Not Available)

c. % sand 10.2                           % silt 56.8                           % clay 33.0

**12. Method of release: Immediate release from bottom opening doors****13. Procedure and site for subsequent barge and hopper washing:  
Hoppers flushed at authorized disposal site.****14. Approval dumping site:**

a. Geographic position (latitude and longitude):  
 $40^{\circ}22' \text{ N}$  (lat)  $73^{\circ}51' \text{ W}$  (long)

b. Depth of water (meters): 20 meters

c. Distance from nearest coast: 9 Km

**15. Additional information:**

10-day bioaccumulation results (ppm):

PHC was statistically significant in Mercenaria (0.154) and Nereis (0.75).

IMCO Dredged Material Ocean Disposal Report  
CY 1982

**1. Issuing authority:**

Division North Atlantic

District New York

**2. Date issued: March 30, 1982**

Permit # 12352 Atlantic Richfield

**3. Country of origin of dredged material or other matter:**

United States of America, New York

**Port of Loading (activity location):**

Newark Bay

**4. General description of dredged material, dredging, and transportation made:**

a. Description: Silty clay,

b. Mode of dredging: clamshell dredge; Great Lakes Dredge & Dock

c. Mode of transportation: towed barge; 3600 cy capacity

**5. Form in which dredged material is presented for disposal:**

Slurry-noncohesive character.

**6. Material quantity (volume in metric units, cubic meters) of material dumped in the ocean and dates of actual disposal during reporting calendar year.**

41,800 cy = 31,958m<sup>3</sup>

**7. Period for which permit is valid or project is scheduled:**

disposal dates <sup>28</sup> June 1982 to <sup>3</sup> July 1982; completed

**8. Expected frequency of dumping:**

2 trips/day

**9. Chemical composition of the liquid phase of dredged material as described in the 11 Jan 77 Federal Register which contains the Environmental Protection Agency's final regulations and criteria:**

	Elutriate (S.D.) ,	ppb
PCB	<0.10	(-)
DDT	<0.05	(-)
Hg	<0.2	(-)
Cd	<0.1	(-)

**10. Bioassays and Bioassessment Evaluations****a. Liquid Phase Bioassay (EC50 or LC50 for each test species) at 96 hours**

<u>Skeletonema costatum</u>	16%
<u>Mysidopsis bahia</u>	43%
<u>Menidia menidia</u>	49%

**b. Suspended Particulate Phase Bioassay (EC50 or LC50 per test species) @ 96**

<u>Acartia tonsa</u>	50%
<u>Mysidopsis bahia</u>	38%
<u>Menidia menidia</u>	65%

**c. Solid Phase Bioassay (% mortality difference with respect to reference)**

<u>Palaemonetes pugio</u>	3.2%	
<u>Mercenaria mercenaria</u>	2.0%	Not statistically significant
<u>Nereis sp.</u>	4.0%	

(\* statistical significance, 95% confidence level)

**11. Properties of the dredged material:****a. Solubility: (% water):** 75.9%**b. Density (gm/cc):** N/A (Not Available)**c. % sand** 18.9      **% silt** 60.9      **% clay** 20.2**12. Method of release:** Immediate release from bottom opening doors**13. Procedure and site for subsequent barge and hopper washing:**  
Hoppers flushed at authorized disposal site.**14. Approval dumping site:****a. Geographic position (latitude and longitude):**  
 $40^{\circ}22' \text{ N}$  (lat)  $73^{\circ}51' \text{ W}$  (long)**b. Depth of water (meters):** 20 meters**c. Distance from nearest coast:** 9 Km**15. Additional information:**10-day bioaccumulation data (ppm): PHC was statistically significant  
in Nereis (2.01) and Mercenaria (2.15)

IMCO Dredged Material Ocean Disposal Report  
CY 1982

1. Issuing authority:

Division North Atlantic

District New York

2. Date issued: May 13, 1982      Permit # 12425    Greater NY Terminals

3. Country of origin of dredged material or other matter:

United States of America, New York

Port of Loading (activity location):

East River

4. General description of dredged material, dredging, and transportation made:

a. Description: Silty clay

b. Mode of dredging: clamshell dredge ; Great Lakes Dredge & Dock

c. Mode of transportation: towed barge; 3600 cy capacity

5. Form in which dredged material is presented for disposal:

Slurry-noncohesive character.

6. Material quantity (volume in metric units, cubic meters) of material dumped in the ocean and dates of actual disposal during reporting calendar year.

103,000 cy = 82,571 m<sup>3</sup>

7. Period for which permit is valid or project is scheduled:

Disposal dates 3 - 15 July 1982; completed

8. Expected frequency of dumping:

2 trips/day

9. Chemical composition of the liquid phase of dredged material as described in the 11 Jan 77 Federal Register which contains the Environmental Protection Agency's final regulations and criteria:

	Site Water (S.D.)	Elutriate (S.D.), ppb
PHC	< 50.0 (-)	< 50.0 (-)
PCB	< 0.1 (-)	< 0.1 (-)
DDT	< 0.05 (-)	< 0.05 (-)
Hg	< 0.2 (-)	< 0.2 (-)
Cd	< 0.1 (-)	< 0.1 (-)

10. Bioassays and Bioassessment Evaluationsa. Liquid Phase Bioassay (EC50 or LC50 for each test species) at 96 hours

<u>Skeletonema costatum</u>	19%
<u>Mysidopsis bahia</u>	37%
<u>Menidia menidia</u>	61%

b. Suspended Particulate Phase Bioassay (EC50 or LC50 per test species) @ 96

<u>Acartia tonsa</u>	> 100%
<u>Mysidopsis bahia</u>	60%
<u>Menidia menidia</u>	50%

c. Solid Phase Bioassay (% mortality difference with respect to reference)

<u>Palaemonetes pugio</u>	5.6	Not statistically significant
<u>Mercenaria mercenaria</u>	3.0	
<u>Nereis</u> sp.	5.0	

(\* statistical significance, 95% confidence level)

11. Properties of the dredged material:a. Solubility: (% water): 71.3%b. Density (gm/cc): N/A (Not available)

c. % sand 10.0                   % silt 72.4                   % clay 17.6

12. Method of release: Immediate release from bottom opening doors13. Procedure and site for subsequent barge and hopper washing:  
Hoppers flushed at authorized disposal site.14. Approval dumping site:a. Geographic position (latitude and longitude):

40°22' N (lat) 73°51'W (long)

b. Depth of water (meters): 20metersc. Distance from nearest coast: 9 Km15. Additional information: 10-day bioaccumulation data (ppm):  
PHC was statistically significant in Mercenaria (1.21).

F-2-1

IMCO Dredged Material Ocean Disposal Report  
CY 1982

1. Issuing authority:

Division North Atlantic      District New York

2. Date issued: April 22, 1975      Permit # 9232 Port Authority of NY/NJ

3. Country of origin of dredged material or other matter:

United States of America, New York

Port of Loading (activity location):

Newark Bay

4. General description of dredged material, dredging, and transportation made:

a. Description: Silty clay

b. Mode of dredging: clamshell dredge; Weeks Dredging Co.

c. Mode of transportation: towed barge; 4000 cy capacity

5. Form in which dredged material is presented for disposal:

Slurry-noncohesive character.

6. Material quantity (volume in metric units, cubic meters) of material dumped in the ocean and dates of actual disposal during reporting calendar year.

180,000 cy = 137,619 m<sup>3</sup>

7. Period for which permit is valid or project is scheduled:

Completed; disposal dates 16 Aug - 15 Sept; and 5 - 8 Nov. 1982.

8. Expected frequency of dumping:

2 trips/day

9. Chemical composition of the liquid phase of dredged material as described in the 11 Jan 77 Federal Register which contains the Environmental Protection Agency's final regulations and criteria:

	Site Water (S.D.)	Elutriate (S.D.)	ppb
PHC	< 200. (-)	< 200. (-)	
PCB	< 0.01 (-)	< 0.01 (-)	
DDT	< 0.05 (-)	< 0.05 (-)	
Hg	< 0.2 (-)	< 0.2 (-)	
Cd	< 0.1 (-)	< 0.1 (-)	

**10. Bioassays and Bioassessment Evaluations**

a. Liquid Phase Bioassay (EC50 or LC50 for each test species)@ 96 hrs.

<u>Skeletonema costatum</u>	> 100%
<u>Mysidopsis bahia</u>	> 100%
<u>Menidia menidia</u>	> 100%

b. Suspended Particulate Phase Bioassay (EC50 or LC50 per test species)@ 96 hr

<u>Acartia tonsa</u>	43%
<u>Mysidopsis bahia</u>	> 100%
<u>Menidia menidia</u>	> 100%

c. Solid Phase Bioassay (% mortality difference with respect to control)

<u>Palaemonetes</u> sp.	-1.0	Negative number indicates greater mortality in control.
<u>Mercenaria mercenaria</u>	3.0	
<u>Nereis virens</u>	4.0	

(\* statistical significance, 95% confidence level)

**11. Properties of the dredged material:**

a. Solubility: (% water): 66.5%

b. Density (gm/cc): N/A (Not Available)

c. % sand 15.8 % silt 66.0 % clay 18.2

**12. Method of release: Immediate release from bottom opening doors**

**13. Procedure and site for subsequent barge and hopper washing:  
Hoppers flushed at authorized disposal site.**

**14. Approval dumping site:**

a. Geographic position (latitude and longitude):

40°23' N (lat) 73°51'W (long)

b. Depth of water (meters): 20 meters

c. Distance from nearest coast: 9 Km

**15. Additional information: 10-day bioaccumulation data (ppm): PHC was statistically significant in Palaemonetes (0.14), Mercenaria (0.25) and Nereis (0.3). PCB was statistically significant in Mercenaria (0.05).**

IMCO Dredged Material Ocean Disposal Report  
CY 1982

1. Issuing authority:

Division North Atlantic      District New York

2. Date issued: November 16, 1981    Permit # 12159 Colgate/Palmolive Co.

3. Country of origin of dredged material or other matter:

United States of America, New York

Port of Loading (activity location):

Hudson River

4. General description of dredged material, dredging, and transportation made:

a. Description: Silty clay,

b. Mode of dredging: clamshell dredge; Weeks Dredging Co.

c. Mode of transportation: towed barge; 4000 cy capacity.

5. Form in which dredged material is presented for disposal:

Slurry-noncohesive character.

6. Material quantity (volume in metric units, cubic meters) of material dumped in the ocean and dates of actual disposal during reporting calendar year.

14,200 cy = 10,857m<sup>3</sup>

7. Period for which permit is valid or project is scheduled:

Disposal dates 23 and 25 July 1982; completed

8. Expected frequency of dumping:

2 trips/day

9. Chemical composition of the liquid phase of dredged material as described in the 11 Jan 77 Federal Register which contains the Environmental Protection Agency's final regulations and criteria:

	Elutriate (S.D.)	ppb
PHC	<50.0	(-)
PCB	<0.10	(-)
DUT	<0.05	(-)
Hg	<0.2	(-)
C d	<0.1	(-)

**10. Bioassays and Bioassessment Evaluations**

a. Liquid Phase Bioassay (EC50 or LC50 for each test species) at 96 hours

<u>Skeletonema costatum</u>	20%
<u>Mysidopsis bahia</u>	> 100%
<u>Menidia menidia</u>	> 100%

b. Suspended Particulate Phase Bioassay (EC50 or LC50 per test species) @ 96

<u>Acartia tonsa</u>	37%
<u>Mysidopsis bahia</u>	> 100%
<u>Menidia menidia</u>	> 100%

c. Solid Phase Bioassay (% mortality difference with respect to reference)

<u>Palaemonetes pugio</u>	1.3	Negative number indicates
<u>Mercenaria mercenaria</u>	1.0	greater mortality in reference
<u>Nereis sp.</u>	-4.0	

(\* statistical significance, 95% confidence level)

**11. Properties of the dredged material:**

a. Solubility: (% water): 67.5%

b. Density (gm/cc): N/A (Not Available)

c. % sand 11.5                   % silt 59.4                   % clay 29.1

**12. Method of release: Immediate release from bottom opening doors**

**13. Procedure and site for subsequent barge and hopper washing:  
Hoppers flushed at authorized disposal site.**

**14. Approval dumping site:**

a. Geographic position (latitude and longitude):

40°22' N (lat) 73°51'W (long)

b. Depth of water (meters): 20 meters

c. Distance from nearest coast: 9 Km

**15. Additional information:**

10-day bioaccumulation data (ppm): PHC was statistically significant in Mercenaria (0.12) and Nereis (0.25).

Hg 0.47 (0.06)  
Cd 0.47 (0.06)

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IMCO Dredged Material Ocean Disposal Report  
CY 1982

1. Issuing authority:

Division North Atlantic      District New York

2. Date issued: July 4, 1979      Permit # 11063 Northville Linden-Terminal

3. Country of origin of dredged material or other matter:

United States of America, New York

Port of Loading (activity location):

Arthur Kill

4. General description of dredged material, dredging, and transportation made:

a. Description: Silty clay,

b. Mode of dredging: clamshell dredge; Weeks Dredging Co.

c. Mode of transportation: towed barge; 4000 cy capacity.

5. Form in which dredged material is presented for disposal:

Slurry-noncohesive character.

6. Material quantity (volume in metric units, cubic meters) of material dumped in the ocean and dates of actual disposal during reporting calendar year.

24,000 cy = 18,349 m<sup>3</sup>

7. Period for which permit is valid or project is scheduled:

disposal dates 23 - 26 August 1982; completed

8. Expected frequency of dumping:

Approximately 2 trips/day

9. Chemical composition of the liquid phase of dredged material as described in the 11 Jan 77 Federal Register which contains the Environmental Protection Agency's final regulations and criteria:

	Site Water (S.D.)	Elutriate (S.D.)	ppb
PHC	< 50.0 (-)	< 50.0 (-)	
PCB	< 0.1 (-)	< 0.1 (-)	
DDT	< 0.05 (-)	< 0.05 (-)	
Hg	< 0.2 (-)	< 0.2 (-)	
Cd	< 0.1 (-)	< 0.1 (-)	

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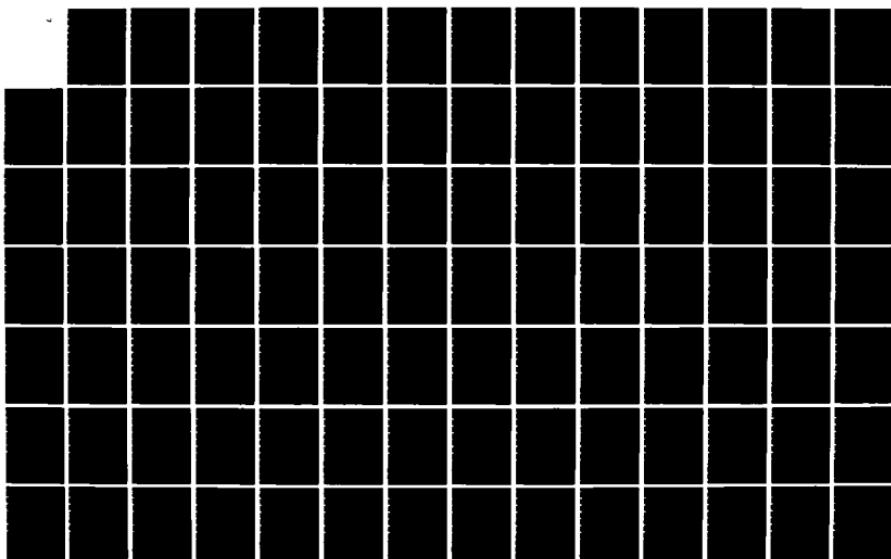
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MATERIAL (U) CORPS OF ENGINEERS FORT BELVOIR VA WATER  
RESOURCES SUPPORT CENTER OCT 83 WRSC-83-SR-1

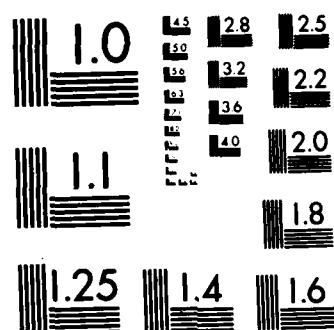
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10. Bioassays and Bioassessment Evaluationsa. Liquid Phase Bioassay (EC50 or LC50 for each test species) at 96 hours

<u>Skeletonema costatum</u>	29%
<u>Mysidopsis bahia</u>	30%
<u>Menidia menidia</u>	30%

b. Suspended Particulate Phase Bioassay (EC50 or LC50 per test species) @ 96

<u>Acartia tonsa</u>	28%
<u>Mysidopsis bahia</u>	31%
<u>Menidia menidia</u>	27%

c. Solid Phase Bioassay (% mortality difference with respect to reference)

<u>Palaemonetes pugio</u>	1.0	Not statistically significant
<u>Mercenaria mercenaria</u>	0.0	
<u>Nereis</u> sp.	5.0	

(\* statistical significance, 95% confidence level)

11. Properties of the dredged material:a. Solubility: (% water): 62.7%b. Density (gm/cc): N/A (Not Available)

c. % sand 7.1                   % silt 61.5                   % clay 31.4

12. Method of release: Immediate release from bottom opening doors13. Procedure and site for subsequent barge and hopper washing:  
Hoppers flushed at authorized disposal site.14. Approval dumping site:a. Geographic position (latitude and longitude):

40°22' N (lat) 73°51'W (long)

b. Depth of water (meters): 20metersc. Distance from nearest coast: 9 Km15. Additional information: 10-day bioaccumulation data (ppm): PHC was statistically significant in Nereis (0.72). PCB was statistically significant in Nereis (Q14).

IMCO Dredged Material Ocean Disposal Report  
CY 1982

1. Issuing authority:

Division North Atlantic      District New York

2. Date issued: Feb. 10, 1982      Permit # 12275 Proctor & Gamble

3. Country of origin of dredged material or other matter:

United States of America, New York

Port of Loading (activity location):

Arthur Kill

4. General description of dredged material, dredging, and transportation made:

a. Description: Silty clay,

b. Mode of dredging: clamshell dredge ; Weeks Dredging Co.

c. Mode of transportation: towed barge; 1800 cy capacity

5. Form in which dredged material is presented for disposal:

Slurry-noncohesive character.

6. Material quantity (volume in metric units, cubic meters) of material dumped in the ocean and dates of actual disposal during reporting calendar year.

10,800 cy = 8,257m<sup>3</sup>

7. Period for which permit is valid or project is scheduled:

Disposal dates 11-18 September 1982; completed

8. Expected frequency of dumping:

1 trip/day

9. Chemical composition of the liquid phase of dredged material as described in the 11 Jan 77 Federal Register which contains the Environmental Protection Agency's final regulations and criteria:

Elutriate (S.D.) ppb

PCB 0.12 (0.02)

DDT <0.05 (-)

Hg 0.3 (0)

Cd 0.87 (0.05)

**10. Bioassays and Bioassessment Evaluations**

a. Liquid Phase Bioassay (EC50 or LC50 for each test species) at 96 hours

<u>Skeletonema costatum</u>	25%
<u>Mysidopsis bahia</u>	70%
<u>Menidia menidia</u>	> 100%

b. Suspended Particulate Phase Bioassay (EC50 or LC50 per test species) @ 96

<u>Acartia tonsa</u>	14%
<u>Mysidopsis bahia</u>	64%
<u>Menidia menidia</u>	> 100%

c. Solid Phase Bioassay (% mortality difference with respect to control)

<u>Palaemonetes pugio</u>	0	Not statistically significant
<u>Mercenaria mercenaria</u>	0	
<u>Nereis</u> sp.	1.0	

(\* statistical significance, 95% confidence level)

**11. Properties of the dredged material:**

a. Solubility: (% water): 59.0%

b. Density (gm/cc): N/A (Not Available)

c. % sand 7.5                   % silt 71.0                   % clay 21.5

**12. Method of release: Immediate release from bottom opening doors**

**13. Procedure and site for subsequent barge and hopper washing:  
Hoppers flushed at authorized disposal site.**

**14. Approval dumping site:**

a. Geographic position (latitude and longitude):

40°22' N (lat) 73°51'W (long)

b. Depth of water (meters): 20 meters

c. Distance from nearest coast: 9 Km

**15. Additional information:**

10 day Bioaccumulation data (ppm): PHC was statistically significant in Palaemonetes (7.77), Mercenaria (0.99) and Nereis (20.07). PCB was statistically significant in Nereis (0.28).

Hg was statistically significant in Palaemonetes (0.28) and Mercenaria (0.26).

IMCO Dredged Material Ocean Disposal Report  
CY 1982

1. Issuing authority:

Division North Atlantic

District New York

2. Date issued: October 15, 1975    Permit #9466 Port Authority of NY/NJ

3. Country of origin of dredged material or other matter:

United States of America, New York

Port of Loading (activity location):

Gowanus Bay & Red Hook-Buttermilk Channels (Upper NY Bay)

4. General description of dredged material, dredging, and transportation made:

a. Description: Silty clay,

b. Mode of dredging: clamshell dredge; Weeks Dredging Co.

c. Mode of transportation: towed barge; 4000 cy capacity

5. Form in which dredged material is presented for disposal:

Slurry-noncohesive character.

6. Material quantity (volume in metric units, cubic meters) of material dumped in the ocean and dates of actual disposal during reporting calendar year.

88,000    cy = 67,280m<sup>3</sup>

7. Period for which permit is valid or project is scheduled:

Completed; disposal dates 20 Sep - 1 Oct. and 16 Oct 1982

8. Expected frequency of dumping:

2 trips/day

9. Chemical composition of the liquid phase of dredged material as described in the 11 Jan 77 Federal Register which contains the Environmental Protection Agency's final regulations and criteria:

	Site Water (S.D.)	Elutriate (S.D.)	ppb
PHC	300. (0)	500. (0)	*
PCB	< 0.1 (-)	< 0.1 (-)	
DDT	< 0.05 (-)	< 0.05 (-)	
Hg	0.27 (0.12)	0.53 (0.29)	
Cd	< 0.1 (-)	< 0.1 (-)	

\*Statistically significant at 95% confidence level

**10. Bioassays and Bioassessment Evaluations**

a. Liquid Phase Bioassay (EC50 or LC50 for each test species) at 96 hours

<u>Skeletonema costatum</u>	> 100%
<u>Mysidopsis bahia</u>	> 100%
<u>Menidia menidia</u>	> 100%

b. Suspended Particulate Phase Bioassay (EC50 or LC50 per test species) @ 96

<u>Acartia tonsa</u>	37%
<u>Mysidopsis bahia</u>	31%
<u>Menidia menidia</u>	43%

c. Solid Phase Bioassay (% mortality difference with respect to control)

<u>Palaemonetes pugio</u>	4.0	Negative number indicates greater mortality in control
<u>Mercenaria mercenaria</u>	-1.0	
<u>Nereis sp.</u>	4.0	

(\* statistical significance, 95% confidence level)

**11. Properties of the dredgei material:**

a. Solubility: (% water): 60.9%

b. Density (gm/cc): N/A (Not Available)

c. % sand 25.7                   % silt 44.7                   % clay 29.6

**12. Method of release: Immediate release from bottom opening doors**

**13. Procedure and site for subsequent barge and hopper washing:  
Hoppers flushed at authorized disposal site.**

**14. Approval dumping site:**

a. Geographic position (latitude and longitude):

40°22' N (lat) 73°51'W (long)

b. Depth of water (meters): 20meters

c. Distance from nearest coast: 9 Km

**15. Additional information:**

The 10-day bioaccumulation test data showed no statistically significant values

IMCO Dredged Material Ocean Disposal Report  
CY 1982

1. Issuing authority:

Division North Atlantic

District New York

2. Date issued: December 15, 1974    Permit # 9104 Refined Syrups & Sugars

3. Country of origin of dredged material or other matter:

United States of America, New York

Port of Loading (activity location):

Hudson River

4. General description of dredged material, dredging, and transportation made:

a. Description: Silty clay,

b. Mode of dredging: clamshell dredge; Weeks Dredging Co.

c. Mode of transportation: towed barge; 3600 cy capacity

5. Form in which dredged material is presented for disposal:

Slurry-noncohesive character.

6. Material quantity (volume in metric units, cubic meters) of material dumped in the ocean and dates of actual disposal during reporting calendar year.

25,200 cy = 19,267 m<sup>3</sup>

7. Period for which permit is valid or project is scheduled:

Disposal dates 17 - 20 October 1982; completed

8. Expected frequency of dumping:

2 trips/day

9. Chemical composition of the liquid phase of dredged material as described in the 11 Jan 77 Federal Register which contains the Environmental Protection Agency's final regulations and criteria:

	Site Water (S.D.)	ppb
PHC	<200.	(-)
PCB	< 0.1	(-)
DDT	<0.05	(-)
Hg	<0.2	(-)
Cd	<0.2	(-)

**10. Bioassays and Bioassessment Evaluations**

a. Liquid Phase Bioassay (EC50 or LC50 for each test species)@ 96 hrs.

<u>Skeletonema costatum</u>	> 100%
<u>Mysidopsis bainia</u>	> 100%
<u>Menidia menidia</u>	> 100%

b. Suspended Particulate Phase Bioassay (EC50 or LC50 per test species)@ 96 hr

<u>Acartia tonsa</u>	62%
<u>Mysidopsis bahia</u>	> 100%
<u>Menidia menidia</u>	52%

c. Solid Phase Bioassay (% mortality difference with respect to control)

<u>Palaemonetes sp.</u>	3.0	Negative number indicates greater mortality in control
<u>Mercenaria mercenaria</u>	- 1.0	
<u>Nereis virens</u>	- 1.0	

(\* statistical significance, 95% confidence level)

**11. Properties of the dredged material:**

a. Solubility: (% water): 59.1%

b. Density (gm/cc): N/A (Not Available)

c. % sand 7.1                   % silt 43.7                   % clay 49.1

**12. Method of release: Immediate release from bottom opening doors**

**13. Procedure and site for subsequent barge and hopper washing:  
Hoppers flushed at authorized disposal site.**

**14. Approval dumping site:**

a. Geographic position (latitude and longitude):

40°22' N (lat) 73°51'W (long)

b. Depth of water (meters): 20meters

c. Distance from nearest coast: 9 Km

**15. Additional information:**

The 10-day bioaccumulation test data showed no statistically significant values.

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IMCO Dredged Material Ocean Disposal Report  
CY 1982

1. Issuing authority:

Division North Atlantic      District New York

2. Date issued: Sept. 23, 1982      Permit # 12597 Gulf Refining & Marketing

3. Country of origin of dredged material or other matter:

United States of America, New York

Port of Loading (activity location):

Arthur Kill

4. General description of dredged material, dredging, and transportation made:

a. Description: Silty clay,

b. Mode of dredging: clamshell dredge; Great Lakes Dredge & Dock

c. Mode of transportation: towed barge; 3600 cy capacity

5. Form in which dredged material is presented for disposal:

Slurry-noncohesive character.

6. Material quantity (volume in metric units, cubic meters) of material dumped in the ocean and dates of actual disposal during reporting calendar year.

25,200 cy = 19, 267m<sup>3</sup>

7. Period for which permit is valid or project is scheduled:

disposal dates 24-27 September 1982; completed.

8. Expected frequency of dumping:

2 trips/day

9. Chemical composition of the liquid phase of dredged material as described in the 11 Jan 77 Federal Register which contains the Environmental Protection Agency's final regulations and criteria:

site water (SD)	Elutriate (SD)	ppb
PHC < 50.(-)	< 50. (-)	
PCB <0.10(-)	<0.10 (-)	
DDT <0.05(-)	<0.05 (-)	
Hg <0.20(-)	<0.2 (-)	
Cd <0.10(-)	<0.10 (-)	

10. Bioassays and Bioassessment Evaluationsa. Liquid Phase Bioassay (EC50 or LC50 for each test species) at 96 hours

<u>Skeletonema costatum</u>	27%
<u>Mysidopsis bahia</u>	80%
<u>Menidia menidia</u>	80%

b. Suspended Particulate Phase Bioassay (EC50 or LC50 per test species) @ 96

<u>Acartia tonsa</u>	25%
<u>Mysidopsis bahia</u>	24%
<u>Menidia menidia</u>	21%

c. Solid Phase Bioassay (% mortality difference with respect to reference)

<u>Palaemonetes pugio</u>	3.0%	negative number indicates greater mortality in reference
<u>Mercenaria mercenaria</u>	1.0%	
<u>Nereis sp.</u>	-1.0%	

(\* statistical significance, 95% confidence level)

11. Properties of the dredged material:a. Solubility: (% water):b. Density (gm/cc):

c. % sand 38.76      % silt 41.52      % clay 19.72

12. Method of release: Immediate release from bottom opening doors13. Procedure and site for subsequent barge and hopper washing:  
Hoppers flushed at authorized disposal site.14. Approval dumping site:a. Geographic position (latitude and longitude):

40°22' N (lat) 73°51'W (long)

b. Depth of water (meters): 20 metersc. Distance from nearest coast: 9 Km15. Additional information:

The 10-day Bioaccumulation tests showed no statistically significant values.

IMCO Dredged Material Ocean Disposal Report  
CY 1982

1. Issuing authority:

Division North Atlantic      District New York

2. Date issued: October 15, 1982      Permit # 12639      B.P. Oil

3. Country of origin of dredged material or other matter:

United States of America, New York

Port of Loading (activity location):

Arthur Kill

4. General description of dredged material, dredging, and transportation made:

a. Description: Silty clay,

b. Mode of dredging: clamshell dredge; Great Lakes Dredge & Dock

c. Mode of transportation: towed barge; 3600 cy capacity.

5. Form in which dredged material is presented for disposal:

Slurry-noncohesive character.

6. Material quantity (volume in metric units, cubic meters) of material dumped in the ocean and dates of actual disposal during reporting calendar year.

39,600 cy = 30,276m<sup>3</sup>

7. Period for which permit is valid or project is scheduled:

disposal dates 26 October 82 - 5 November 1982; completed

8. Expected frequency of dumping:

1 trip/day

9. Chemical composition of the liquid phase of dredged material as described in the 11 Jan 77 Federal Register which contains the Environmental Protection Agency's final regulations and criteria:

<u>Elutriate</u>	(S.D.)	<u>Site Water</u>	(S.D.)	ppb
PCB	< 0.10	(-)	< 0.10	(-)
Cd	< 0.10	(-)	< 0.10	(-)
Hg	< 0.20	(-)	< 0.20	(-)
PHC	< 50.0	(-)	< 50.0	(-)

**10. Bioassays and Bioassessment Evaluations****a. Liquid Phase Bioassay (EC50 or LC50 for each test species)@ 96 hrs.**

<u>Skeletonema costatum</u>	N/A (not available)
<u>Mysidopsis bania</u>	60%
<u>Menidia menidia</u>	29%

**b. Suspended Particulate Phase Bioassay (EC50 or LC50 per test species)@ 96 h**

<u>Acartia tonsa</u>	28%
<u>Mysidopsis bahia</u>	26%
<u>Menidia menidia</u>	33%

**c. Solid Phase Bioassay (% mortality difference with resp to control)**

<u>Palaemonetes</u> sp.	2.0	
<u>Mercenaria mercenaria</u>	0	
<u>Nereis virens</u>	2.0	Not statistically significant

(\* statistical significance, 95% confidence level)

**11. Properties of the dredged material:****a. Solubility: (% water):** 59.1%**b. Density (gm/cc):** N/A (not available)**c. % sand** 54.0      **% silt** 35.5      **% clay** 10.5**12. Method of release:** Immediate release from bottom opening doors**13. Procedure and site for subsequent barge and hopper washing:**  
Hoppers flushed at authorized disposal site.**14. Approval dumping site:****a. Geographic position (latitude and longitude):**  
40°22' N (lat) 73°51' W (long)**b. Depth of water (meters):** 20 meters**c. Distance from nearest coast:** 9 Km**15. Additional information:**10-day bioaccumulation results (ppm):  
No statistically significant values

IMCO Dredged Material Ocean Disposal Report  
CY 1982

1. Issuing authority:

Division North Atlantic      District New York

2. Date issued: November 12, 1982    Permit # 12676 Tenneco Oil

3. Country of origin of dredged material or other matter:

United States of America, New York

Port of Loading (activity location):

Passaic River

4. General description of dredged material, dredging, and transportation made:

a. Description: Silty clay

b. Mode of dredging: clamshell dredge; Weeks Dredging Co.

c. Mode of transportation: towed barge ; 4000 cy capacity

5. Form in which dredged material is presented for disposal:

Slurry-noncohesive character.

6. Material quantity (volume in metric units, cubic meters) of material dumped in the ocean and dates of actual disposal during reporting calendar year.

30,900 cy = 23,625m<sup>3</sup>

7. Period for which permit is valid or project is scheduled:

Disposal dates 18-22 November 1982; completed

8. Expected frequency of dumping:

2 trips/day

9. Chemical composition of the liquid phase of dredged material as described in the 11 Jan 77 Federal Register which contains the Environmental Protection Agency's final regulations and criteria:

	Elutriate (S.D.)	ppb
PCB	< 0.10	(-)
DDT	< 0.05	(-)
Hg	< 0.2	(-)
Cd	< 0.1	(-)

10. Bioassays and Bioassessment Evaluationsa. Liquid Phase Bioassay (EC50 or LC50 for each test species) at 96 hours

<u>Skeletonema costatum</u>	16%
<u>Mysidopsis bahia</u>	43%
<u>Menidia menidia</u>	49%

b. Suspended Particulate Phase Bioassay (EC50 or LC50 per test species) @ 96

<u>Acartia tonsa</u>	50%
<u>Mysidopsis bahia</u>	38%
<u>Menidia menidia</u>	65%

c. Solid Phase Bioassay (% mortality difference with respect to reference)

<u>Palaemonetes pugio</u>	3.2	Not statistically significant
<u>Mercenaria mercenaria</u>	2.0	
<u>Nereis</u> sp.	4.0	

( \* statistical significance, 95% confidence level )

11. Properties of the dredged material:a. Solubility: (% water): N/A (Not Available)b. Density (gm/cc): N/A

c. % sand N/A % silt N/A % clay N/A

12. Method of release: Immediate release from bottom opening doors13. Procedure and site for subsequent barge and hopper washing:  
Hoppers flushed at authorized disposal site.14. Approval dumping site:a. Geographic position (latitude and longitude):

40°22' N (lat) 73°51'W (long)

b. Depth of water (meters): 20 metersc. Distance from nearest coast: 9 Km15. Additional information:10-day bioaccumulation date (ppm): PHC was statistically significant in Nereis (2.01) and Mercenaria (2.15).

IMCO Dredged Material Ocean Disposal Report  
CY 1982

1. Issuing authority:

<u>Division</u> North Atlantic	<u>District</u> New York
2. <u>Date issued:</u> May 4, 1982	<u>Permit #</u> 12399 <u>New York City</u> Dept. of Sanitation

3. Country of origin of dredged material or other matter:

United States of America, New York

Port of Loading (activity location):

Hudson River

4. General description of dredged material, dredging, and transportation made:

a. Description: Silty clay,

b. Mode of dredging: clamshell dredge; Weeks Dredging Co.

c. Mode of transportation: towed barge; 1870 cy capacity

5. Form in which dredged material is presented for disposal:

Slurry-noncohesive character.

6. Material quantity (volume in metric units, cubic meters) of material dumped in the ocean and dates of actual disposal during reporting calendar year.

12,090 cy = 9,243m<sup>3</sup>

7. Period for which permit is valid or project is scheduled:

Disposal dates 11 November - 3 December 1982; completed

8. Expected frequency of dumping:

2 trips/week

9. Chemical composition of the liquid phase of dredged material as described in the 11 Jan 77 Federal Register which contains the Environmental Protection Agency's final regulations and criteria:

	Site Water (S.D.)	Elutriate (S.D.)	ppb
PCB	< 0.10 (-)	< 0.10 (-)	
DDT	< 0.05 (-)	< 0.05 (-)	
Hg	0.300 (0)	0.233 (0.058)	
Cd	< 0.10 (-)	< 0.10 (-)	

10. Bioassays and Bioassessment Evaluations

a. Liquid Phase Bioassay (EC50 or LC50 for each test species)@ 96 hrs.

<u>Skeletonema costatum</u>	35%
<u>Mysidopsis bahia</u>	> 100%
<u>Menidia menidia</u>	> 100%

b. Suspended Particulate Phase Bioassay (EC50 or LC50 per test species)@ 96 hr

<u>Acartia tonsa</u>	44%
<u>Mysidopsis bahia</u>	97%
<u>Menidia menidia</u>	78%

c. Solid Phase Bioassay (% mortality difference with respect to reference)

<u>Palaemonetes sp.</u>	1.0	Negative number indicates
<u>Mercenaria mercenaria</u>	-2.0	greater mortality in reference
<u>Nereis virens</u>	0.0	

(\* statistical significance, 95% confidence level)

11. Properties of the dredged material:

a. Solubility: (% water): 43.0%

b. Density (gm/cc): N/A (Not Available)

c. % sand 17.7      % silt 65.3      % clay 17.0

12. Method of release: Immediate release from bottom opening doors

13. Procedure and site for subsequent barge and hopper washing:  
Hoppers flushed at authorized disposal site.

14. Approval dumping site:

a. Geographic position (latitude and longitude):  
 $40^{\circ}22' \text{ N}$  (lat)  $73^{\circ}51' \text{ W}$  (long)

b. Depth of water (meters): 20 meters

c. Distance from nearest coast: 9 Km

15. Additional information:

The 10 day bioaccumulation test data showed no statistically significant values.

IMCO Dredged Material Ocean Disposal Report  
CY 1982

**1. Issuing authority:**

Division North Atlantic      District New York

**2. Date issued:** Dec. 6, 1982      Permit # 12697      Mobil Oil Corp.

**3. Country of origin of dredged material or other matter:**

United States of America, New York

**Port of Loading (activity location):**

Arthur Kill

**4. General description of dredged material, dredging, and transportation made:**

a. Description: Silty clay,

b. Mode of dredging: clamshell dredge; Great Lakes Dredge & Dock

c. Mode of transportation: towed barge; two types: 4000 and 3600 cu capacity.

**5. Form in which dredged material is presented for disposal:**

Slurry-noncohesive character.

**6. Material quantity (volume in metric units, cubic meters) of material dumped in the ocean and dates of actual disposal during reporting calendar year.**

120,400 cu = 92,052 m<sup>3</sup>

**7. Period for which permit is valid or project is scheduled:**

Disposal dates 10 - 29 December 1982; Job is continuing.

**8. Expected frequency of dumping:**

2 trips/day

**9. Chemical composition of the liquid phase of dredged material as described in the 11 Jan 77 Federal Register which contains the Environmental Protection Agency's final regulations and criteria:**

	Site Water (S.D.)	Elutriate (S.D.)	ppb
PHC	<50.0 (-)	<50.0 (-)	
PCB	<0.10 (-)	<0.10 (-)	
DDT	<0.05 (-)	<0.05 (-)	
Hg	<0.20 (-)	<0.20 (-)	
Cd	<0.10 (-)	<0.10 (-)	

**10. Bioassays and Bioassessment Evaluations**

a. Liquid Phase Bioassay (EC50 or LC50 for each test species) at 96 hours

<u>Skeletonema costatum</u>	13%
<u>Mysidopsis bahia</u>	48%
<u>Menidia menidia</u>	> 100%

b. Suspended Particulate Phase Bioassay (EC50 or LC50 per test species) @ 96

<u>Acartia tonsa</u>	70.0%
<u>Mysidopsis bahia</u>	57%
<u>Menidia menidia</u>	> 55%

c. Solid Phase Bioassay (% mortality difference with respect to reference)

<u>Palaemonetes pugio</u>	2.7	negative number indicates greater mortality in reference
<u>Mercenaria mercenaria</u>	1.0	
<u>Nereis sp.</u>	-4.0	

(\* statistical significance, 95% confidence level)

**11. Properties of the dredged material:**

a. Solubility: (% water): 39.9%

b. Density (gm/cc): N/A (Not Available)

c. % sand 47.54 % silt 32.62 % clay 19.84

**12. Method of release:** Immediate release from bottom opening doors

**13. Procedure and site for subsequent barge and hopper washing:**  
Hoppers flushed at authorized disposal site.

**14. Approval dumping site:**

a. Geographic position (latitude and longitude):

40°22' N (lat) 73°51'W (long)

b. Depth of water (meters): 20meters

c. Distance from nearest coast: 9 Km

**15. Additional information:**

10-day bioaccumulation data (ppm): PHC was statistically significant in Mercenaria (0.33) and Nereis (0.24).

IMCO REPORT ON OCEAN DUMPING - CY 82

1. Issuing authority:

Division: South Atlantic      District: Jacksonville

2. Date issued: September 1981.

3. Country of origin of dredged material or other matter: United States.

Port of loading (activity location): St. Johns River, Jacksonville, Florida.

4. General description of dredged material, dredging, and transportation made:

a. Description: Silt, black.

b. Mode of dredging: Crane (floating) and clamshell.

c. Mode of transportation: Scow and tug.

5. Form in which dredged material is presented for disposal: Soupy silt.

6. Material quantity (volume in metric units, cubic meters) of material dumped in the ocean and dates of actual disposal during reporting calendar year: 400,705 cubic meters, Jan 82 - Apr 82.

7. Period for which permit is valid or project is scheduled: Nov 81 - Apr 82.

8. Expected frequency of dumping: Daily.

9. Chemical composition of the dredged material as reported in elutriate test concentrations or "bulk" or "total" analyses as appropriate:

a. Elutriate test results:

(1) Nutrients:

NH4-N (mg/l)-----2.36  
O-P04-P (mg/l)-----0.01

(2) Metals:

Pb-----	0.7
Mn-----	850
Hg-----	1.05
Zn-----	45
Fe-----	16
Cu-----	1.5

N1-----3.4  
Se-----<5.0  
Ag-----0.3

(3) Organics:

Oil & Grease (mg/l) - 0.6  
PCB (mg/l) - <2

b. Other analyses:

(1) Metals: None.

(2) Organics: None.

(3) Other: None.

10. Bioassay and bioassessment evaluation:

a. Liquid phase bioassay:

b. Suspended particulate phase bioassay:

c. Solid phase bioassay:

11. Properties of the dredged material:

a. Solubility (% water):

b. Density (gm/cc):

c. pH:

12. Method of release: Dump scow.

Time to release: Minutes.

13. Procedure and site for subsequent barge and hopper washing: Wash down at work site.

14. Approved dumping site:

a. Geographical position (latitude and longitude):

30°21'30", 81°18'34"; 30°21'30", 81°17'26"  
30°20'30", 81°17'26"; 30°20'30", 81°18'34"

b. Depth of water (meters): 15 meters.

c. Distance (kilometers) from nearest coast: 9 kilometers.

15. Additional information - relevant factors listed in Annex III of the Convention, e.g., toxicity, other biological properties:

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IMCO REPORT ON OCEAN DUMPING - CY 82

1. Issuing authority:

Division: South Atlantic      District: Jacksonville

2. Date issued: 5 August 1981.

3. Country of origin of dredged material or other matter: United States.

Port of loading (activity location): U.S. Navy (80J-2097), Port Everglades.

4. General description of dredged material, dredging, and transportation made:

a. Description: Dredged material is predominantly sand.

b. Mode of dredging: Hydraulic pipeline.

c. Mode of transportation: Barge.

5. Form in which dredged material is presented for disposal:

6. Material quantity (volume in metric units, cubic meters) of material dumped in the ocean and dates of actual disposal during reporting calendar year: 4,386 cubic meters, 28 Jan 82 - 25 Feb 82.

7. Period for which permit is valid or project is scheduled: 5 Aug 81 through 5 Aug 84.

8. Expected frequency of dumping: Annually.

9. Chemical composition of the dredged material as reported in elutriate test concentrations or "bulk" or "total" analyses as appropriate:

a. Elutriate test results:

(1) <u>Nutrients:</u>	Water	PE-Nav-1	PE-Nav-1	Water	Nav-1
	PE-Nav-1			PE-Nav-2	
NH <sub>4</sub> - N (un-ionized) (mg/liter)	0.40(0.01)	.69(.011)	.44(.017)	.96(.015)	
P, Total	.05	.08	.05	.10	
(2) <u>Metals:</u> <u>Results in Milligrams/Liter</u>					
Hg	<0.0002	0.0004	0.0003	0.0005	
Mn	0.003	0.012	0.003	0.009	
Pb	0.0023	0.0042	0.0021	0.0035	
Zn	0.012	0.015	0.015	0.012	
Fe	0.015	0.005	0.006	0.015	

Cu	0.0014	0.0045	0.0013	0.0056
Ni	0.001	0.001	0.001	0.003
Se	0.003	0.005	0.005	0.006
Ag	<0.0001	0.0013	<0.0001	<0.0001

(3) Organics: None known.

b. Other analyses:

(1) Metals: None known.

(2) Organics: None known.

(3) Other:

10. Bioassay and bioassessment evaluation: None required.

a. Liquid phase bioassay:

b. Suspended particulate phase bioassay:

c. Solid phase bioassay:

11. Properties of the dredged material:

a. Solubility (% water):

b. Density (gm/cc):

c. pH: 7.6 (20°C).

12. Method of release: Bottom dump - gravity flow.

Time to release: Daylight only.

13. Procedure and site for subsequent barge and hopper washing: Pressure hoses at disposal site.

14. Approved dumping site: Port Everglades EPA-approved disposal area.

a. Geographical position (latitude and longitude):

80°04'30", 26°07'00"; 80°03'30", 26°07'00";  
80°03'30", 26°06'00"; 80°04'30", 26°06'00".

b. Depth of water (meters): 61.

c. Distance (kilometers) from nearest coast: 2.4.

15. Additional information - relevant factors listed in Annex III of the Convention, e.g., toxicity, other biological properties: None.

PERMIT NO. 81-197DREDGED MATERIAL OCEAN  
DISPOSAL REPORT  
CY 1982

1. Issuing authority: (33 U. S. C. 1413)

Division: South Pacific

District: Los Angeles

2. Date issued: 12 November 1982

3. Country of origin of dredged material or other matter:  
United States of America

Port of Loading (activity location): Dover Shores, Newport Harbor, California

4. General description of dredged material, dredging, and transportation made:

a. Description: Silt, Sand

b. Mode of dredging: Suction

c. Mode of transportation: Barge

5. Form in which dredged material is presented for disposal: Slurry

6. Material quantity (volume in metric units, cubic meters) of material dumped in the ocean and dates of actual disposal during reporting calendar year

20,000 cubic yards between 1 January 1982 to 31 December 1982

= 15,291 m<sup>3</sup>

7. Period for which permit is valid or project is scheduled:  
12 November 1982 to 12 November 1985
8. Expected frequency of dumping:  
Daily during maintenance dredging
  - a. Date of first dump:
  - b. Date of last dump:

9. Chemical composition of the liquid phase of dredged material as described in the 11 Jan 77 Federal Register which contains the Environmental Protection Agency's final regulations and criteria:

- a. Liquid Phase test results: See Marine Bioassay Laboratories Report on file in Environmental Branch, Corps of Engineers, Los Angeles District
- b. Other analyses: See Below

10. Bioassay and Bioassessment Evaluations:

- a. Liquid Phase Bioassay:
- b. Suspend Particulate Phase Bioassay:
- c. Solid Phase Bioassay:

} See Bioassay Report prepared by Marine Bioassay Laboratories

11. Properties of the dredged material:

a. Solubility (% water):

b. Density (gm/cc):

c. pH:

Covered by Biomass Report

12. Method of release: Bottom Dumping from Barge

13. Procedure and site for subsequent barge and hopper washing:  
Hosing down at channel dredging site

14. Approved dumping site: LA-3

a. Geographical position (latitude and longitude)  
 $33^{\circ} 31' 42''$  N,  $117^{\circ} 54' 48''$  W

b. Depth of water (meters): 250 fathoms

c. Distance from nearest coast: 4.0 nautical miles from harbor mouth

15. Additional information:

PERMIT NO. 81-90  
DREDGED MATERIAL OCEAN  
DISPOSAL REPORT  
CY 1982

1. Issuing authority: (33 U. S. C. 1413)

Division: South Pacific

District: Los Angeles

2. Date issued: 4 June 1982

3. Country of origin of dredged material or other matter:

United States of America

Port of Loading (activity location): Los Angeles Harbor, California

4. General description of dredged material, dredging, and transportation methods

a. Description: Silt, Sand

b. Mode of dredging: Suction

c. Mode of transportation: Barge

5. Form in which dredged material is presented for disposal: Slurry

6. Material quantity (volume in metric units, cubic meters) of material dumped in the ocean and dates of actual disposal during reporting calendar year

110,000 cubic yards between 1 January 1982 to 31 December 1982

= 241,171 m<sup>3</sup>

7. Period for which permit is valid or project is scheduled:

4 June 1982 to 4 June 1985

8. Expected frequency of dumping:

Daily during maintenance dredging

a. Date of first dump:

b. Date of last dump:

9. Chemical composition of the liquid phase of dredged material as described in the 11 Jan 77 Federal Register which contains the Environmental Protection Agency's final regulations and criteria:

a. Liquid Phase test results:

b. Other analyses:

10. Bioassay and Bioassessment Evaluations:

a. Liquid Phase Bioassay:

b. Suspend Particulate Phase Bioassay:

c. Solid Phase Bioassay:

11. Properties of the dredged material:

- a. Solubility (% water):
- b. Density (gm/cc):
- c. pH:

12. Method of release: Bottom Dumped from Barge

13. Procedure and site for subsequent barge and hopper washing:

At approved disposal site

14. Approved dumping site: IA-2

- a. Geographical position (latitude and longitude)  
33° 37' 06" N, 118° 17' 24" W
- b. Depth of water (meters): 100 fathoms
- c. Distance from nearest coast: 5.3 nautical miles from shore

15. Additional information:

PERMIT NO. 81-79DREDGED MATERIAL OCEAN  
DISPOSAL REPORT  
CY 1982

1. Issuing authority: (33 U. S. C. 1413)

Division: South Pacific

District: Los Angeles

2. Date issued: 1 July 1982

3. Country of origin of dredged material or other matter:

United States of America

Port of Loading (activity location):

4. General description of dredged material, dredging, and transportation made:

a. Description: Silt, Sand

b. Mode of dredging: Suction

c. Mode of transportation: Barge

5. Form in which dredged material is presented for disposal: Slurry

6. Material quantity (volume in metric units, cubic meters) of material dumped in the ocean and dates of actual disposal during reporting calendar year  
65,000 cubic yards between 1 January 1982 to 31 December 1982

= 49,676 m<sup>3</sup>

7. Period for which permit is valid or project is scheduled:  
1 July 1982 to 1 July 1985
8. Expected frequency of dumping:  
Daily during maintenance dredging
  - a. Date of first dump:
  - b. Date of last dump:
9. Chemical composition of the liquid phase of dredged material as described in the 11 Jan 77 Federal Register which contains the Environmental Protection Agency's final regulations and criteria:
  - a. Liquid Phase test results:
  - b. Other analyses:
10. Bioassay and Bioassessment Evaluations:
  - a. Liquid Phase Bioassay:
  - b. Suspend Particulate Phase Bioassay:
  - c. Solid Phase Bioassay:

11. Properties of the dredged material:

- a. Solubility (% water):
- b. Density (gm/cc):
- c. pH:

12. Method of release: Bottom dumped from barge

13. Procedure and site for subsequent barge and hopper washing:

At approved site

14. Approved dumping site: LA-2

a. Geographical position (latitude and longitude)  
33° 37' 06" N, 118° 17' 24" W

b. Depth of water (meters): 100 fathoms

c. Distance from nearest coast: 5.3 nautical miles from shore

15. Additional information:

PERMIT NO. 81-218DREDGED MATERIAL OCEAN  
DISPOSAL REPORT  
CY 1982

1. Issuing authority: (33 U. S. C. 1413)

Division: South Pacific

District: Los Angeles

2. Date issued: 25 January 1982

3. Country of origin of dredged material or other matter:

United States of America

Port of Loading (activity location): Long Beach Harbor, California

4. General description of dredged material, dredging, and transportation made

a. Description: Silt, Sand

b. Mode of dredging: Clamshell Bucket or Suction

c. Mode of transportation: Barge

5. Form in which dredged material is presented for disposal: Slurry

6. Material quantity (volume in metric units, cubic meters) of material dumped in the ocean and dates of actual disposal during reporting calendar year  
40,000 cubic yards between 1 January 1982 to 31 December 1982

7. Period for which permit is valid or project is scheduled:

25 January 1982 to 25 January 1985

8. Expected frequency of dumping:

Daily during maintenance dredging

a. Date of first dump:

b. Date of last dump:

9. Chemical composition of the liquid phase of dredged material as described in the 11 Jan 77 Federal Register which contains the Environmental Protection Agency's final regulations and criteria:

a. Liquid Phase test results:

b. Other analyses:

10. Bioassay and Bioassessment Evaluations:

a. Liquid Phase Bioassay:

b. Suspend Particulate Phase Bioassay:

c. Solid Phase Bioassay:

11. Properties of the dredged material:

- a. Solubility (% water):
- b. Density (gm/cc):
- c. pH:

12. Method of release: Bottom dumped from barge

13. Procedure and site for subsequent barge and hopper washing:

At approved site

14. Approved dumping site: LA-2

a. Geographical position (latitude and longitude)

33° 37' 06" N; 118° 17' 24" W

b. Depth of water (meters): 100 fathoms

c. Distance from nearest coast: 5.3 nautical miles from shore

15. Additional information:

PERMIT NO. 82-3

DREDGED MATERIAL OCEAN  
DISPOSAL REPORT  
CY 1982

1. Issuing authority: (33 U. S. C. 1413)

Division: South Pacific

District: Los Angeles

2. Date issued: 16 April 1982

3. Country of origin of dredged material or other matter:

United States of America

Port of Loading (activity location): Los Angeles Harbor, California

4. General description of dredged material, dredging, and transportation made:

a. Description: Silt, Sand

b. Mode of dredging: Clamshell Bucket or Suction

c. Mode of transportation: Barge

5. Form in which dredged material is presented for disposal: Slurry

6. Material quantity (volume in metric units, cubic meters) of material dumped in the ocean and dates of actual disposal during reporting calendar year

70,000 cubic yards between 1 January 1982 31 December 1982

= 53,519 m<sup>3</sup>

7. Period for which permit is valid or project is scheduled:  
16 April 1982 to 16 April 1985
8. Expected frequency of dumping:  
Daily during maintenance dredging
  - a. Date of first dump:
  - b. Date of last dump:
9. Chemical composition of the liquid phase of dredged material as described in the 11 Jan 77 Federal Register which contains the Environmental Protection Agency's final regulations and criteria:
  - a. Liquid Phase test results:
  - b. Other analyses:
10. Bioassay and Bioassessment Evaluations:
  - a. Liquid Phase Bioassay:
  - b. Suspend Particulate Phase Bioassay:
  - c. Solid Phase Bioassay:

11. Properties of the dredged material:

a. Solubility (% water):

b. Density (gm/cc):

c. pH:

12. Method of release: Bottom dumped from barge

13. Procedure and site for subsequent barge and hopper washing:

At approved disposal site

14. Approved dumping site: LA-2

a. Geographical position (latitude and longitude)

33° 37' 06" N, 118° 17' 24" W

b. Depth of water (meters): 100 fathoms

c. Distance from nearest coast: 5.3 nautical miles from shore

15. Additional information:

PERMIT NO. 82-69

DREDGED MATERIAL OCEAN  
DISPOSAL REPORT  
CY 1982

1. Issuing authority: (33 U. S. C. 1413)

Division: South Pacific

District: Los Angeles

2. Date issued: 15 September 1982

3. Country of origin of dredged material or other matter:

United States of America

Port of Loading (activity location):

4. General description of dredged material, dredging, and transportation made:

a. Description: Silt, Sand

b. Mode of dredging: Suction

c. Mode of transportation: Barge

5. Form in which dredged material is presented for disposal: Slurry

6. Material quantity (volume in metric units, cubic meters) of material dumped in the ocean and dates of actual disposal during reporting calendar year  
201,000 cubic yards between 1 January 1982 to 31 December 1982

**7. Period for which permit is valid or project is scheduled:**

15 September 1982 to 15 September 1985

**8. Expected frequency of dumping:**

Daily during maintenance dredging

a. Date of first dump:

b. Date of last dump:

**9. Chemical composition of the liquid phase of dredged material as described in the 11 Jan 77 Federal Register which contains the Environmental Protection Agency's final regulations and criteria:**

a. Liquid Phase test results:

b. Other analyses:

**10. Bioassay and Bioassessment Evaluations:**

a. Liquid Phase Bioassay:

b. Suspend Particulate Phase Bioassay:

c. Solid Phase Bioassay:

11. Properties of the dredged material:

- a. Solubility (% water):
- b. Density (gm/cc):
- c. pH:

12. Method of release: Bottom dumped from barge

13. Procedure and site for subsequent barge and hopper washing:

At approved disposal site

14. Approved dumping site: LA-5

a. Geographical position (latitude and longitude)  
32° 36' 50" N; 117° 20' 40" W

b. Depth of water (meters): 100 fathoms

c. Distance from nearest coast: 7.7 nautical miles from shore

15. Additional information:

PERMIT NO. 82-61

DREDGED MATERIAL OCEAN  
DISPOSAL REPORT  
CY 1982

1. Issuing authority: (33 U. S. C. 1413)

Division: South Pacific

District: Los Angeles

2. Date issued: 20 October 1982

3. Country of origin of dredged material or other matter:  
United States of America

Port of Loading (activity location): Long Beach Harbor, California

4. General description of dredged material, dredging, and transportation made:

a. Description: Silt, Sand

b. Mode of dredging: Clamshell Bucket or Suction

c. Mode of transportation: Barge

5. Form in which dredged material is presented for disposal: Slurry

6. Material quantity (volume in metric units, cubic meters) of material dumped in the ocean and dates of actual disposal during reporting calendar year

50,000 cubic yards between 1 January 1982 to 31 December 1982

= 38,222 m<sup>3</sup>

7. Period for which permit is valid or project is scheduled:

20 October 1982 to 20 October 1985

8. Expected frequency of dumping:

Daily during maintenance dredging

a. Date of first dump:

b. Date of last dump:

9. Chemical composition of the liquid phase of dredged material as described in the 11 Jan 77 Federal Register which contains the Environmental Protection Agency's final regulations and criteria:

a. Liquid Phase test results:

b. Other analyses:

10. Bioassay and Bioassessment Evaluations:

a. Liquid Phase Bioassay:

b. Suspend Particulate Phase Bioassay:

c. Solid Phase Bioassay:

11. Properties of the dredged material:

- a. Solubility (% water):
- b. Density (gm/cc):
- c. pH:

12. Method of release: Bottom dumped from barge

13. Procedure and site for subsequent barge and hopper washing:

At approved disposal site

14. Approved dumping site: LA-2

a. Geographical position (latitude and longitude)

33° 37' 06" N, 118° 17' 24" W

b. Depth of water (meters): 100 fathoms

c. Distance from nearest coast: 5.3 nautical miles from shore

15. Additional information:

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INCO DREDGED MATERIAL OCEAN DISPOSAL REPORT

CY 1982

1. Issuing authority: USACE

Division NEW ENGLAND      District N/A

2. Date issued: N/A

3. Country of origin of dredged material or other matter: UNITED STATES OF AMERICA, MAINE

Port of loading (activity location): COREA HARBOR

4. General description of dredged material, dredging, and transportation made:

a. Description: GRAY SAND; SILTY SAND; SMOOTH SURFACE; GRAY COLOR;  
SANDY ORGANIC SILT

b. Mode of dredging: CLAMSHELL - BUCKET

c. Mode of transportation: SCOW

- Form in which dredged material is presented for disposal: SATURATED . NON-COHESIVE MATERIAL.

- Material quantity (volume in metric units, cubic meters) of material dumped in the ocean and dates of actual disposal during reporting calendar year.

26,699 M<sup>3</sup>    21 SEPT - 10 NOV

7. Period for which permit is valid or project is scheduled:

21 Sept - 10 Nov

8. Expected frequency of dumping:

1-2 scows per day, seven days a week

9. Chemical composition of the liquid phase of dredged material as described in the 11 January 1977 Federal Register which contains the Environmental Protection Agency's final regulations and criteria:

a. Liquid Phase test results:

(1) Nutrients:

(2) Metals:

(3) Organics:

b. Other analyses:

(1) Metals:

(2) Organics:

(3) Other: Graph 1612

10. Bioassay and Bioassessment Evaluations:

- a. Liquid Phase Bioassay:
- b. Suspend Particulate Phase Bioassay:
- c. Solid Phase Bioassay:

11. Properties of the dredged material:

- a. Solubility (% Water):
- b. Density (gm/cc):
- c. pH:

12. Method of release: THE SCOW RELEASES THE DREDGED MATERIAL THROUGH HYDRAULICALLY OPERATED VALVES UPON COMING TO A HALT AT THE DUMPING POINT.
13. Procedure and site for subsequent barge and hopper washing: NORMALLY, SCOWS ARE WASHED DOWN AT EITHER THE OUTLET OR INLET SITE.
14. Approved dumping site:
- Geographical position (latitude and longitude):  $44^{\circ} 23.1' \text{ N}$   
 $068^{\circ} 57.0' \text{ W}$
  - Depth of water (meters): 50
  - Distance from nearest coast: 1.9 KM
15. Additional information:

FQ.

INCO DREDGED MATERIAL OCEAN DISPOSAL REPORT

CY 1992

1. Issuing authority: USACE

Division NEW ENGLAND      District N/A

2. Date issued: N/A

3. Country or origin of dredged material or other matter: UNITED STATES  
AMERICA, MAINE

Port of loading (activity location): LUCAS HARBOR

4. General description of dredged material, dredging, and transportation

made:

- a. Description: Rock

- b. Mode of dredging: CLAMSHELL BUCKET

- c. Mode of transportation: SCOW

- i. Form in which dredged material is presented for disposal: NON-COhesive

- . Material quantity (volume in metric units, cubic meters) of material dumped  
in the ocean and dates of actual disposal during reporting calendar year.

1530 M<sup>3</sup>      21 SEPT - 10 NOV

7. Period for which permit is valid or project is scheduled:

21 Sept - 10 Nov

8. Expected frequency of dumping:

4 SEW LOADS

9. Chemical composition of the liquid phase of dredged material as described in the 11 January 1977 Federal Register which contains the Environmental Protection Agency's final regulations and criteria:

a. Liquid Phase test results:

(1) Nutrients:

(2) Metals:

(3) Organics:

b. Other analyses:

1 2 3 4

(1) Metals:

(2) Organics:

(3) Other:

10. Bioassay and Bioassessment Evaluations:

a. Liquid Phase Bioassay:

b. Suspend Particulate Phase Bioassay:

c. Solid Phase Bioassay:

11. Properties of the dredged material:

a. Solubility (% Water):

b. Density (gm/cc):

c. pH:

- RJ
12. Method of release: THE SCOW RELEASES THE DIRT IN MALEAS THROUGH HYDRAULICALLY OPERATED DUSTS UPON COMING TO A HALT AT THE DUMPING POINT.
13. Procedure and site for subsequent barge and hopper washing: NORMALLY, SCOWS ARE WASHED DOWN AT EITHER THE UPSTREAM OR DUMP SITE.
14. Approved dumping site:
- Geographical position (latitude and longitude):  $44^{\circ} 22.9' N$   
 $068^{\circ} 57.8' W$
  - Depth of water (meters): 16
  - Distance from nearest coast: 1.9 KM
15. Additional information:

INCO DREDGED MATERIAL OCEAN DISPOSAL REPORTCY 1982

1. Issuing authority: USACE

Division NEW ENGLAND

District N/A

2. Date issued: N/A

3. Country of origin of dredged material or other matter: UNITED STATES OF AMERICA, MASSACHUSETTS

Port of loading (activity location): ISLAND GRID RIVER

4. General description of dredged material, dredging, and transportation made:

a. Description: BLACK AND SANDY ORGANIC SILT; COARSE SANDY, ORGANIC SILT; FINE, FINE ORGANIC SILT; BLACK ORGANIC SILT - BLACK ORGANIC SILT - BE UNWITH SILTY, SMOOTH SAND CLAY, ETC., AND GRAVELY SANDY SILTY, SANDY SILTY, ETC.

b. Mode of dredging: CLAMSHELL-BUCKET

c. Mode of transportation: SCOW

- i. Form in which dredged material is presented for disposal: SATURATED CONES, ETC AND NON-COHERENT MATERIAL

- . Material quantity (volume in metric units, cubic meters) of material dumped in the ocean and dates of actual disposal during reporting calendar year.

89700 M<sup>3</sup> 1 SAN - 9 APRIL

7. Period for which permit is valid or project is scheduled:  
23 NOV 81 - 19 JAN 82

8. Expected frequency of dumping:

25 cars per day, 7 days a week

9. Chemical composition of the liquid phase of dredged material as described in the 11 January 1977 Federal Register which contains the Environmental Protection Agency's final regulations and criteria:

a. Liquid Phase test results:

FLUORATE		DREDGED SITE WATER
(1) Nutrients:(mg/l)		
NITRITE(N)	0.010	0.008
NITRATE(N)	0.09	0.11
ORTHO(P)	0.060	0.027
TOTAL (P)	0.130	0.057
(2) Metals:(mg/l)	<0.0005	<0.0005
Hg	0.049	0.012
Pb	0.35	0.001
Zn	0.006	<0.001
As	0.002	0.001
Cd	0.10	0.001
Cr	0.16	0.001
Cu	0.12	0.001
Mn	0.20	0.001
(3) Organics:(mg/l)		
DDT	0.1	40.1
PCB	17	12
(4) SULFATE		
SULFATE (mg/l)	2347	1840

b. Other analyses: Bulk sediment (avg)

C-3 pg. 3 of 1

(ppm)	
(1) Metals: Hg	0.82
Pb	238.33
Zn	364
As	25
Cd	7.9
Cr	86.7
Cu	197
Ni	61.3
(2) Organics:	840

OIL AND GREASE  
(PPM) 33930

(3) Other:

TKN 16233  
(ppm)

COD 372000  
(ppm)

10. Bioassay and Bioassessment Evaluations:

- a. Liquid Phase Bioassay: NO SIGNIFICANT EFFECT
- b. Suspend Particulate Phase Bioassay: NO SIGNIFICANT EFFECT
- c. Solid Phase Bioassay: NO SIGNIFICANT EFFECT

11. Properties of the dredged material:

- a. Solubility (% Water):
- b. Density (gm/cc):
- c. pH:

12. Method of release: THE SCOW RELEASER USES OCEANIC MATERIALS THROUGH HYDRAULICALLY OPERATED DOORS UPON COMING TO A HALT AT THE DUMPING DUMP

13. Procedure and site for subsequent barge and hopper washing: NORMALLY, SCOWS ARE WASHED DOWN AT EITHER THE DILLOE OR DUMP SITE.

14. Approved dumping site:

a. Geographical position (latitude and longitude):

42° 25.9' N

70° 34.9' W

b. Depth of water (meters): 77

c. Distance from nearest coast: 18.3 KM.

15. Additional information:

THIS DUMP SITE IS SUBJECT TO MONITORING STUDIES UNDER THE DISPOSAL AREA MONITORING SYSTEM (DAMOS) PROGRAM. THE PROGRAM IS DESIGNED TO IDENTIFY AND EVALUATE IMPACTS RESULTING FROM THE DISPOSAL OF DREDGED MATERIALS AT DESIGNATED DUMP SITES. THE DAMOS PROGRAM CONTINUALLY CONTRIBUTES TO THE DEVELOPMENT OF NEW MONITORING METHODOLOGIES THAT IMPACT ON THE EFFICIENCY OF FIELD OBSERVATIONS AND LOGISTICS, AS WELL AS THIS.

THIS PROGRAM WAS DESIGNATED TO COMPLY WITH SECTIONS 228.9 AND 228.10 OF THE OCEAN DUMPING ACT RELATING TO DUMP SITE MONITORING AND THE LIMITATION OF DREDGE

IMCO DREDGED MATERIAL OCEAN DISPOSAL REPORTCY 19821. Issuing authority: USACEDivision New England      District N/A2. Date issued: N/A3. Country of origin of dredged material or other matter: United States  
of America, MassachusettsPort of loading (activity location): Mystic River4. General description of dredged material, dredging, and transportation  
made:a. Description:

One (1) barge - 200' long x 30' wide x 10' deep.  
Dredging of bottom, sand and gravel.

b. Mode of dredging: CLAMSHELL - BUCKETc. Mode of transportation: SCOW5. Form in which dredged material is presented for disposal: NATURAL CLOUDS  
AND NON-CLOUDING MATERIAL6. Material quantity (volume in metric units, cubic meters) of material dumped  
in the ocean and dates of actual disposal during reporting calendar year.244792 M<sup>3</sup>    10 AUGUST - 15 OCT.

C-11 pg. 2 of 7

7. Period for which permit is valid or project is scheduled:

10 AUG 82 - 15 OCT 82

8. Expected frequency of dumping: 2 shows per day, 7 days a week.

9. Chemical composition of the liquid phase of dredged material as described in the 11 January 1977 Federal Register which contains the Environmental Protection Agency's final regulations and criteria:

a. Liquid Phase test results:

DREDGE SITE WATER	DREDGE SITE 2 WATER		DREDGE SITE 3 WATER		
	SITE 1 WATER	SITE 2 WATER	SITE 3 WATER	SITE 4 WATER	
<b>(1) Nutrients:</b>					
NITRITE NITROGEN (PPM)	<0.005	20.005	20.005	20.005	20.005
NITRATE NITROGEN (PPM)	0.067	0.13	0.03	0.11	1.06
AMMONIA NITROGEN (PPM)	5.7	0.5	0.8	2.5	1.3
SOLUBLE PHOSPHATE (PPM)	20.01	0.06	0.01	0.05	0.02
SOLUBLE CHLORIDE (PPM)	0.01	0.05	0.01	0.05	0.05
CHLOROPHYLL "a" (PPM)	Hg	<0.5	<0.5	<0.5	<0.5
<b>(2) Metals:</b>					
Pb (PPM)	16	14	11.7	7	3.3
Zn	27	100	30	1	40
As	21	21	1.6	<1	21
Cd	1.3	25	3.7	9	1.6
Cr	24	4	4.7	<4	24
Cu	42	6	2	2	6
Ni	20	30	23	10	20
V	47	240	<40	240	<40
<b>(3) Organics:</b>					
OIL & GREASE (PPM)	1.0	0.5	20.5	20.5	0.5
PCB (PPM)	11.9	0.015	0.9	20.001	-
DDT (PPM)	0.001	0.001	20.001	20.001	-
<b>(4) OTHER:</b>					
SULFATE (PPM)	2431	3240	2873	1571	2213
					3500

b. Other analyses: BULK SEDIMENT(1) Metals: (AVL)

(ppm)	Hg	1.1	Cd	5	Ag	207
	Pb	110	Cr	126	V	50
	Zn	167	Cu	105		
	As	19	Ni	37		

(2) Organics: (AVL)

VOLATILE SOLIDS - 8.6%

OIL AND GREASE - 5916 ppm

(3) Other: (AVL)

C.O.D. - 87100 ppm

T.I.C.N. - 16980 ppm

10. Bioassay and Bioassessment Evaluations:a. Liquid Phase Bioassay: NO SIGNIFICANT EFFECTb. Suspend Particulate Phase Bioassay: NO SIGNIFICANT EFFECTc. Solid Phase Bioassay: NO SIGNIFICANT EFFECT11. Properties of the dredged material:a. Solubility (% Water):b. Density (gm/cc):c. pH:

12. Method of release: THE SCOW RELEASES THE DREDGED MATERIAL THROUGH HYDRAULICALLY OPERATED DOORS UPON CETING TO A HOLE AT THE DUMPING POINT
13. Procedure and site for subsequent barge and hopper washing: NORMALLY, SCOWS ARE WASHED DOWN AT EITHER THE DREDGE OR DUMP
14. Approved dumping site:
  - a. Geographical position (latitude and longitude):

42° 25.9' N  
70° 34.9' W
  - b. Depth of water (meters): 77
  - c. Distance from nearest coast: 18.3 KM

15. Additional information: THIS DUMP SITE IS SUBJECT TO MONITORING STUDIES UNDER THE DISPOSAL AREA MONITORING SYSTEM (DAMOS) PROGRAM. THE PROGRAM IS DESIGNED TO IDENTIFY AND EVALUATE IMPACTS RESULTING FROM THE DISPOSAL OF DREDGED MATERIALS AT DESIGNATED DUMP SITES. THE DAMOS PROGRAM CONTINUALLY CONTRIBUTES TO THE DEVELOPMENT OF NEW MONITORING METHODOLOGIES THAT REFLECT ON THE EFFICIENCY OF FIELD OBSERVATIONS AND LOGISTICS, AS WELL AS TIME.

THIS PROGRAM WAS DESIGNATED TO COMPLY WITH SECTIONS 228.9 AND 228.10 OF THE OCEAN DUMPING ACT RELATIVE TO DUMP SITE MONITORING AND THE EVALUATION OF DISPOSAL.

INCO DREDGED MATERIAL OCEAN DISPOSAL REPORTCY 1982

1. Issuing authority: USACE

Division NEW ENGLAND      District N/A "

2. Date issued: N/A

3. Country of origin of dredged material or other matter: UNITED STATES OF AMERICA, MASSACHUSETTS

Port of loading (activity location): CHELSEA RIVER

4. General description of dredged material, dredging, and transportation made:

a. Description: DARK GRAY OR BROWN FINE SANDY CLAY; DARK GREEN TO BLACK ORGANIC FINE SANDY CLAY

b. Mode of dredging: CLAMSHELL - BULLET

c. Mode of transportation: SCOW

- i. Form in which dredged material is presented for disposal: SATURATED. COHESIVE AND NON-COHESIVE MATERIAL

- j. Material quantity (volume in metric units, cubic meters) of material dumped in the ocean and dates of actual disposal during reporting calendar year.

116,113 m<sup>3</sup>    12 SEPT - 15 OCT

7. Period for which permit is valid or project is scheduled:

12 Sep 82 - 15 Oct 82

8. Expected frequency of dumping:

2 SCOWS PER DAY, 7 DAYS A WEEK

9. Chemical composition of the liquid phase of dredged material as described in the 11 January 1977 Federal Register which contains the Environmental Protection Agency's final regulations and criteria:

a. Liquid Phase test results:

	DREDGE SITE WATER	SITE 1	SITE 2	DREDGE SITE WATER	SITE 3	DREDGE SITE WATER
<b>(ppm)</b>						
<b>(1) Nutrients:</b>						
NITRITE NITROGEN	≤0.005	≤0.005	0.005	≤0.02	≤0.005	≤0.005
NITRATE NITROGEN	0.10	0.17	0.02	0.09	0.02	0.12
AMMONIA N-TROGEN	10	1.2	7.23	20.5	1.03	20.5
TOTAL PHOSPHORUS	3.01	0.30	0.02	0.30	0.01	0.06
FETAL PHOSPHORUS	2.01	0.30	0.05	0.34	0.01	0.06
<b>(ppm)</b>						
<b>(2) Metals:</b>						
Cr	≤0.5	≤0.5	≤0.5	≤0.5	≤0.5	≤0.5
Pb	14.7	14	15	14.7	14	10
Zn	76.7	100	76.3	56.7	100	1
As	41	41	3.2	41	41	41
Cd	20.5	13	20.5	20.5	1.24	9.3
CC	24	44	24	24	4.7	4.7
CU	22	5	4.3	22	2.7	11
Ni	25	30	16.7	25	20	10
Ag	≤90	≤60	76.7	≤50	90	≤60
V	240	240	240	240	240	240
<b>(3) Organics:</b>						
SILANOGLYCEROL (ppm)	≤0.15	≤0.15	0.7	≤0.15	≤0.15	0.06
Total PCB (ppm)	≤0.001	0.15	—	—	≤0.001	≤0.001
Total DDT (ppm)	≤0.001	≤0.001	—	—	—	—
OTHER FUTURE (ppm)	2550	3230	2350	3260	2627	3360

b. Other analyses: BULK SEDIMENT

C-5 pg. 3 of 4

(1) Metals: (AVG)

(PPM)	Hg 0.7	Cd 3.9	Ag 127.2
	Pb 54.7	Cr 110.7	V 41.7
	Zn 137.3	Cu 35.8	
	As 9.4	Ni 32.8	

(2) Organics:

OIL AND GREASE 3125

(PPM)

% VOL SOLIDS 4.1

(3) Other:

Cu D 70167  
(PPM)

10. Bioassay and Bioassessment Evaluations:

- Liquid Phase Bioassay: NO SIGNIFICANT EFFECT
- Suspend Particulate Phase Bioassay: NO SIGNIFICANT EFFECT
- Solid Phase Bioassay: NO SIGNIFICANT EFFECT

11. Properties of the dredged material:

- Solubility (% Water):
- Density (gm/cc):
- pH:

12. Method of release: THE SCOW RELEASER IS A DEDICATED MATERIALS PUMP. INDIVIDUALLY OPERATING PUMPS UPON COMING TO DRAFT AT THE DUMP SITE.
13. Procedure and site for subsequent barge and hopper washing: NORMALLY, SCOWS ARE WASHED DOWN AT EITHER THE DRAWE OR DUMP SITE.
14. Approved dumping site:
- Geographical position (latitude and longitude):  $42^{\circ} 25.7' \text{ N}$   
 $70^{\circ} 34.9' \text{ W}$
  - Depth of water (meters): 77
  - Distance from nearest coast: 18.3 KM
15. Additional information: THIS DUMP SITE IS SUBJECT TO MONITORING STUDIES UNDER THE DISPOSAL AREA MONITORING SYSTEM (DAMOS) PROGRAM. THE PROGRAM IS DESIGNED TO IDENTIFY AND EVALUATE IMPACTS RESULTING FROM THE DISPOSAL OF DREDGED MATERIALS AT DESIGNATED DUMP SITES. THE DAMOS PROGRAM CONTINUALLY CONTRIBUTES TO THE DEVELOPMENT OF NEW MONITORING METHODOLOGIES THAT REFLECT IN THE EFFICIENCY OF FIELD OBSERVATIONS AND LOGISTICS, AS WELL AS TIME. THIS PROGRAM WAS DESIGNATED TO COMPLY WITH SECTIONS 228.9 AND 228.10 OF THE OCEAN DUMPING ACT RELATIVE TO DUMP SITE MONITORING AND THE EVALUATION OF DISPOSAL.

IMCO Dredged Material Ocean Disposal Report  
CY 1982

1. Issuing authority:

Division North Atlantic      District New York

2. Date issued: Adopted 1933      Permit # Federal Project #63  
 Permit: 6 May 81      N.Y. & N.J. Channels

3. Country of origin of dredged material or other matter:

United States of America, New York

Port of Loading (activity location):

Kill Van Kull

4. General description of dredged material, dredging, and transportation made:

a. Description: Silty clay

b. Mode of dredging: hopper dredge; Corps vessel - Goethals

c. Mode of transportation: hopper dredge; 3047 cy capacity

5. Form in which dredged material is presented for disposal:

Slurry-noncohesive character.

6. Material quantity (volume in metric units, cubic meters) of material dumped in the ocean and dates of actual disposal during reporting calendar year.

17,038 cy = 13,065 m<sup>3</sup>

7. Period for which permit is valid or project is scheduled:

Completed; disposal dates 2-8 January 82.

8. Expected frequency of dumping:

1.8 trips/day

9. Chemical composition of the liquid phase of dredged material as described in the 11 Jan 77 Federal Register which contains the Environmental Protection Agency's final regulations and criteria:

Site Water (s.d.)	Plutonite (S.D.)	ppb
PCB <0.1 (-)	<0.1 (-)	
DDT <0.05 (-)	<0.05 (-)	
Hg <0.2 (-)	<0.2 (-)	
Cd 0.20 (0.01)	0.32(0.01)	*

(\*Statistically significant at 95% C.I.)

**10. Bioassays and Biopassessment Evaluations****a. Liquid Phase Bioassay (EC50 or LC50 for each test species)@ 96 hrs.**

<u>Skeletonema costatum</u>	> 100%
<u>Mysidopsis bahia</u>	> 100%
<u>Menidia menidia</u>	> 100%

**b. Suspended Particulate Phase Bioassay (EC50 or LC50 per test species)@ 96 hr**

<u>Acartia tonsa</u>	55%
<u>Mysidopsis bahia</u>	60%
<u>Menidia menidia</u>	71%

**c. Solid Phase Bioassay (% mortality difference with respect to control)**

<u>Palaemonetes</u> sp.	-5.3	Not statistically significant
<u>Mercenaria mercenaria</u>	1.7	
<u>Nereis virens</u>	-5.8	

(\* statistical significance, 95% confidence level)

**11. Properties of the dredged material:****a. Solubility: (% water):** 44.0%**b. Density (gm/cc):** N/A (Not Available)**c. % sand** 48.3      **% silt** 19.4      **% clay** 18.1**12. Method of release:** Immediate release from bottom opening doors**13. Procedure and site for subsequent barge and hopper washing:**  
Hoppers flushed at authorized disposal site.**14. Approval dumping site:****a. Geographic position (latitude and longitude):**  
 $40^{\circ}22' \text{ N}$  (lat)  $73^{\circ}51' \text{ W}$  (long)**b. Depth of water (meters):** 20meters**c. Distance from nearest coast:** 9 Km**15. Additional information:**

The 10 day bioaccumulation test showed no statistically significant values.

IMCO Dredged Material Ocean Disposal Report  
CY 1982

1. Issuing authority:

Division North Atlantic

District New York

2. Date issued: Adopted 1922      Permit # Federal Project #64  
 Permit 12 Feb 82      Newark Bay, Hackensack and  
 Passaic Rivers

3. Country of origin of dredged material or other matter:

United States of America, New York

Port of Loading (activity location):

Newark Bay (Main Channel & Pt. Newark/Pt. Elizabeth Channels)

4. General description of dredged material, dredging, and transportation made:

a. Description: Silty clay

b. Mode of dredging: clamshell dredge; Great Lakes Dredge & Dock

c. Mode of transportation: towed barge; 4000 cy capacity

5. Form in which dredged material is presented for disposal:

Slurry-noncohesive character.

6. Material quantity (volume in metric units, cubic meters) of material dumped in the ocean and dates of actual disposal during reporting calendar year.

552,781 cy = 422, 634m<sup>3</sup>

7. Period for which permit is valid or project is scheduled:

Completed; disposal dates 8 Jul - 29 Nov 1982

8. Expected frequency of dumping:

2 trips/day

9. Chemical composition of the liquid phase of dredged material as described in the 11 Jan 77 Federal Register which contains the Environmental Protection Agency's final regulations and criteria:

A. Main Channel:

Below minimum detection limits in both Site Water and Elutriate Analyses for all constituents tested (PCB, DDT, Hg, Cd, Pb)

B. Pt. Elizabeth/P. Newark Channels:

Below minimum detection limits in both Site Water and Elutriate Analyses for all constituents tested (PCB, DDT, Hg, Cd, Pb)

NOTE: Main Channel data is to left of vertical line

Pt. Newark/Pt. Elizabeth Channels data is to right of vertical line

#### 10. Bioassays and Bioassessment Evaluations

##### a. Liquid Phase Bioassay (EC50 or LC50 for each test species)@ 96 hrs.

<u>Skeletonema costatum</u>	> 100%	> 100%
<u>Mysidopsis bania</u>	> 100%	> 100%
<u>Menidia menidia</u>	> 100%	> 100%

##### b. Suspended Particulate Phase Bioassay (EC50 or LC50 per test species)@ 96 h

<u>Acartia tonsa</u>	64%	62%
<u>Mysidopsis bahia</u>	> 100%	> 100%
<u>Menidia menidia</u>	> 100%	> 100%

##### c. Solid Phase Bioassay (% mortality difference with respect to control)

<u>Palaemonetes sp.</u>	6.0	4.7 *
<u>Mercenaria mercenaria</u>	1.0	0
<u>Nereis virens</u>	5.0 *	3.0 *

(\* statistical significance, 95% confidence level)

#### 11. Properties of the dredged material:

a. Solubility: (% water): N/A (Not Available) || 59.6%

b. Density (gm/cc): N/A (Not Available) || N/A (Not Available)

c. % sand 3.5 || 23.7 % silt 46.3 || 46.8 % clay 50.2 || 29.5

#### 12. Method of release: Immediate release from bottom opening doors

#### 13. Procedure and site for subsequent barge and hopper washing: Hoppers flushed at authorized disposal site.

#### 14. Approval dumping site:

##### a. Geographic position (latitude and longitude):

40°22' N (lat) 73°51'W (long)

##### b. Depth of water (meters): 20 meters

##### c. Distance from nearest coast: 9 Km

#### 15. Additional information: 10- Day Bioaccumulation Data (ppm):

PHC was statistically significant in Palaemonetes (Q16), Mercenaria (1.27) and Nereis (1.68).

PCB was statistically significant in Nereis (0.11).

PHC was statistically significant in Mercenaria (0.25) and Nereis (0.87).

PCB was statistically significant in Nereis (0.09).

IMCO Dredged Material Ocean Disposal Report  
CY 1982

**1. Issuing authority:**

**Division North Atlantic      District New York**

**3. Country of origin of dredged material or other matter:**

**United States of America, New York**

**Port of Loading (activity location):**

### Channel North of Shooters Island

**4. General description of dredged material, dredging, and transportation made:**

a. Description: Silty clay

b. Mode of dredging: clamshell dredge; Great Lakes Dredge & Dock

c. Mode of transportation: towed barge; 4000 cy capacity

**5. Form in which dredged material is presented for disposal:**

### **Slurry-noncohesive character.**

6. Material quantity (volume in metric units, cubic meters) of material dumped in the ocean and dates of actual disposal during reporting calendar year.      600-100      Jan 1974      3

$$638,109 \text{ cy} = 487,873 \text{ m}^3$$

7. Period for which permit is valid or project is scheduled:

Completed; disposal dates 31 Jul - 16 Sep 1982

#### **8. Expected frequency of dumping:**

2 trips/day

9. Chemical composition of the liquid phase of dredged material as described in the 11 Jan 77 Federal Register which contains the Environmental Protection Agency's final regulations and criteria:

Site Water (S.D.)	Elutriate (S.D.)	ppb
PCB <0.1 (-)	< 0.1 (-)	
DDE <0.05 (-)	< 0.05 (-)	
Hg <0.2 (-)	< 0.2 (-)	
Cd 0.33 (0.01)	0.32 (0.01)	

10. Bioassays and Bioassessment Evaluations

a. Liquid Phase Bioassay (EC50 or LC50 for each test species)@ 96 hrs.

<u>Skeletonema costatum</u>	90%
<u>Mysidopsis bahia</u>	> 100%
<u>Menidia menidia</u>	> 100%

b. Suspended Particulate Phase Bioassay (EC50 or LC50 per test species)@ 96 hr

<u>Acartia tonsa</u>	> 100%
<u>Mysidopsis bahia</u>	> 100%
<u>Menidia menidia</u>	> 100%

c. Solid Phase Bioassay (% mortality difference with respect to control)

<u>Palaemonetes sp.</u>	3.0	
<u>Mercenaria mercenaria</u>	0.9	Not statistically significant.
<u>Nereis virens</u>	3.3	

(\* statistical significance, 95% confidence level)

11. Properties of the dredged material:

a. Solubility (% water): 53.0%

b. Density (gm/cc): N/A (Not Available)

c. % sand 24.8                   % silt 35.8                   % clay 39.4

12. Method of release: Immediate release from bottom opening doors

13. Procedure and site for subsequent barge and hopper washing:  
Hoppers flushed at authorized disposal site.

14. Approval dumping site:

a. Geographic position (latitude and longitude):

40°23' N (lat) 73°51'W (long)

b. Depth of water (meters): 20 meters

c. Distance from nearest coast: 9 Km

15. Additional information:

The 10-day bioaccumulation test showed no statistically significant values.

IMCO Dredged Material Ocean Disposal Report  
CY 1982

**1. Issuing authority:**

Division North Atlantic      District New York

**3. Country of origin of dredged material or other matter:**

**United States of America, New York**

**Port of Loading (activity location):**

## Sandy Hook Channel

4. General description of dredged material, dredging, and transportation made:

a. Description: Silty clay

b. Mode of dredging: ~~chain~~<sup>Hopper</sup> dredge; North American Trailing Co.

c. Mode of transportation: ~~trough conveyor~~ Hopper dredge; 3600 cu capacity

**5. Form in which dredged material is presented for disposal:**

### **Slurry-noncohesive character.**

6. Material quantity (volume in metric units, cubic meters) of material dumped in the ocean and dates of actual disposal during reporting calendar year.

$$44,832 \text{ cv} = 34,277 \text{ m}^3$$

7. Period for which permit is valid or project is scheduled:

Completed; disposal dates 11 - 15 Jul 1982.

**8. Expected frequency of dumping:**

2 trips/day

9. Chemical composition of the liquid phase of dredged material as described in the 11 Jan 77 Federal Register which contains the Environmental Protection Agency's final regulations and criteria:

No elutriate or site water analyses.

10. Bioassays and Bioassessment Evaluations

- a. Liquid Phase Bioassay (EC50 or LC50 for each test species)@ 96 hrs.

<u>Skeletonema costatum</u>	
<u>Mysidopsis bania</u>	N/A (Not Available)
<u>Menidia menidia</u>	

- b. Suspended Particulate Phase Bioassay (EC50 or LC50 per test species)@ 96 hrs

<u>Acartia tonsa</u>	
<u>Mysidopsis bahia</u>	N/A (Not Available)
<u>Menidia menidia</u>	

- c. Solid Phase Bioassay (% mortality difference with respect to control)

<u>Palaemonetes sp.</u>	
<u>Mercenaria mercenaria</u>	N/A (Not Available)
<u>Nereis virens</u>	

(\* statistical significance, 95% confidence level)

11. Properties of the dredged material:

- a. Solubility: (% water): N/A (Not Available)

- b. Density (gm/cc): N/A (Not Available)

- c. % sand /gravel 98.0    % silt 1.2                  % clay 0.8

12. Method of release: Immediate release from bottom opening doors13. Procedure and site for subsequent barge and hopper washing:  
Hoppers flushed at authorized disposal site.14. Approval dumping site:

- a. Geographic position (latitude and longitude):

40°22' N (lat) 73°51'W (long)

- b. Depth of water (meters): 20 meters

- c. Distance from nearest coast: 9 Km

15. Additional information:

No 10 - day bioaccumulation data.

IMCO Dredged Material Ocean Disposal Report  
CY 1982

1. Issuing authority:

Division North Atlantic

District New York

2. Date issued: Adopted 1933      Permit # Federal Project #63  
 Permit: 8 Jun 81      NY & NJ Channels

3. Country of origin of dredged material or other matter:

United States of America, New York

Port of Loading (activity location):

Perth Amboy Anchorage

4. General description of dredged material, dredging, and transportation made:

a. Description: Silty clay

b. Mode of dredging: clamshell dredge ; Great Lakes Dredge & Dock

c. Mode of transportation: towed barge ; 4000 cy capacity

5. Form in which dredged material is presented for disposal:

Slurry-noncohesive character.

6. Material quantity (volume in metric units, cubic meters) of material dumped in the ocean and dates of actual disposal during reporting calendar year.

1,092,345 cy = 835,163 m<sup>3</sup>

7. Period for which permit is valid or project is scheduled:

Completed; disposal dates 8 Aug 1982 - 12 Jan 1983.

8. Expected frequency of dumping:

2 trips/day

9. Chemical composition of the liquid phase of dredged material as described in the 11 Jun 77 Federal Register which contains the Environmental Protection Agency's final regulations and criteria:

	Site Water (S.D.)	Elutriate (S.D.) ppb
PhC	< 200.(-)	< 200.(-)
PCB	< 0.1(-)	< 0.1(-)
DDT	< 0.05(-)	< 0.05(-)
Hg	< 0.2(-)	< 0.2(-)
Cd	< 0.1(-)	< 0.1(-)
Pb	< 10.0(-)	< 10.0(-)

**10. Bioassays and Bioassessment Evaluations****a. Liquid Phase Bioassay (EC50 or LC50 for each test species)@ 96 hrs.**

<u>Skeletonema costatum</u>	>100%
<u>Mysidopsis bania</u>	>100%
<u>Menidia menidia</u>	>100%

**b. Suspended Particulate Phase Bioassay (EC50 or LC50 per test species)@ 96 hr.**

<u>Acartia tonsa</u>	>100%
<u>Mysidopsis bahia</u>	>100%
<u>Menidia menidia</u>	>100%

**c. Solid Phase Bioassay (% mortality difference with respect to control)**

<u>Palaemonetes sp.</u>	0 Negative number indicates
<u>Mercenaria mercenaria</u>	0 greater mortality in control
<u>Nereis virens</u>	-4.0

(\* statistical significance, 95% confidence level)

**11. Properties of the dredged material:****a. Solubility: (% water): N/A (Not Available)****b. Density (gm/cc): N/A (Not Available)****c. % sand 22.8      % silt 38.8      % clay 38.4****12. Method of release: Immediate release from bottom opening doors****13. Procedure and site for subsequent barge and hopper washing:  
Hoppers flushed at authorized disposal site.****14. Approval dumping site:****a. Geographic position (latitude and longitude):  
40°22' N (lat) 73°51'W (long)****b. Depth of water (meters): 20meters****c. Distance from nearest coast: 9 Km****15. Additional information:**

10 - day bioaccumulation data (ppm):  
 PHC was statistically significant in *Mytilus edulis* (1.35).

f1.

IMCO Dredged Material Ocean Disposal Report  
CY 1982

1. Issuing authority:

Division North Atlantic

District New York

2. Date issued: Adopted 1899

Permit # Federal Project #34

Permit: 22 Jul 82

Bay Ridge & Red Hook Channels

3. Country of origin of dredged material or other matter:

United States of America, New York

Port of Loading (activity location):

Bay Ridge & Red Hook Channels (Upper Bay)

4. General description of dredged material, dredging, and transportation made:

a. Description: Silty clay

b. Mode of dredging: clamshell dredge ; Great Lakes Dredge & Dock

c. Mode of transportation: towed barge ; 4000 cy capacity

5. Form in which dredged material is presented for disposal:

Slurry-noncohesive character.

6. Material quantity (volume in metric units, cubic meters) of material dumped in the ocean and dates of actual disposal during reporting calendar year.

331,300 cy = 253,300 m<sup>3</sup>

7. Period for which permit is valid or project is scheduled:

Completed; disposal dates 27 Sep - 22 Nov 1982

8. Expected frequency of dumping:

2 trips/day

9. Chemical composition of the liquid phase of dredged material as described in the 11 Jan 77 Federal Register which contains the Environmental Protection Agency's final regulations and criteria:

	Site Water (S.D.)	Elutriate (S.D.) ppb
PCB	< 50.0(-)	< 50.0(-)
PCB	< 0.1(-)	< 0.1(-)
DDE	< 0.05( )	< 0.05( )
Hg	< 0.1( )	< 0.1( )
Cd	< 0.1(-)	< 0.1(-)
Pb	< 10.0(-)	< 10.0(-)

10. Bioassays and Bioassessment Evaluations

a. Liquid Phase Bioassay (EC50 or LC50 for each test species)@ 96 hrs.

<u>Skeletonema costatum</u>	1.7%
<u>Mysidopsis bahia</u>	39%
<u>Menidia menidia</u>	76%

b. Suspended Particulate Phase Bioassay (EC50 or LC50 per test species)@ 96 hr

<u>Acartia tonsa</u>	31%
<u>Mysidopsis bahia</u>	65%
<u>Menidia menidia</u>	29%

c. Solid Phase Bioassay (% mortality difference with respect to ~~control~~) reference

<u>Palaemonetes sp.</u>	64	
<u>Mercenaria mercenaria</u>	0	Not statistically significant
<u>Nereis virens</u>	0	

(\* statistical significance, 95% confidence level)

11. Properties of the dredged material:

a. Solubility: (% water): N/A (Not Available)

b. Density (gm/cc): N/A (Not Available)

c. % sand 10.6 % silt 80.2 % clay 9.2

12. Method of release: Immediate release from bottom opening doors

13. Procedure and site for subsequent barge and hopper washing:  
Hoppers flushed at authorized disposal site.

14. Approval dumping site:

a. Geographic position (latitude and longitude):

40°22' N (lat) 73°51' W (long)

b. Depth of water (meters): 20 meters

c. Distance from nearest coast: 9 Km

15. Additional information:

10-Day Bioaccumulation Data (ppm):

PhC was statistically significant in Palaemonetes (0.24), Mercenaria (0.81),  
Nereis (0.62) and Mytilus (5.55)..

PCB was statistically significant in Nereis (0.06) and Mytilus (0.26).

Pb was " " " " (0.56) and " (0.44).

IMCO Dredged Material Ocean Disposal Report  
CY 1982

**1. Issuing authority:**

### **Division North Atlantic**

**District New York**

**3. Country of origin of dredged material or other matter:**

**United States of America, New York**

**Port of Loading (activity location):**

## Flushing Bay

4. General description of dredged material, dredging, and transportation made:

a. Description: Silty clay

b. Mode of dredging: clamshell dredge: Great Lakes Dredge & Dock

c. Mode of transportation: towed barge: two types: 4000 & 2000 cu capacity

5. Form in which dredged material is presented for disposal:

#### **Slurry-noncohesive character.**

6. Material quantity (volume in metric units, cubic meters) of material dumped in the ocean and dates of actual disposal during reporting calendar year.

404,057 cy = 308,926 m<sup>3</sup>

7. Period for which permit is valid or project is scheduled:

Completed; disposal dates 14 Jun - 25 Aug 1982

### 8. Expected frequency of dumping:

2 trips/day

9. Chemical composition of the liquid phase of dredged material as described in the 11 Jan 77 Federal Register which contains the Environmental Protection Agency's final regulations and criteria:

	Site Water (S.D.)	Elutriate (S.D.) ppb
MIC	<200. (-)	< 200. (-)
PCB	< 0.1 (-)	< 0.1 (-)
DDT	<0.05(-)	< 0.05(-)
Hg	< 0.2(-)	< 0.2(-)
Cd	< 0.1(-)	< 0.1(-)
Pb	<10. (-)	<10. (-)

10. Bioassays and Bioassessment Evaluations

a. Liquid Phase Bioassay (EC50 or LC50 for each test species)@ 96 hrs.

<u>Skeletonema costatum</u>	>100%
<u>Mysidopsis bania</u>	>100%
<u>Menidia menidia</u>	48%

b. Suspended Particulate Phase Bioassay (EC50 or LC50 per test species)@ 96 hr.

<u>Acartia tonsa</u>	> 100%
<u>Mysidopsis bahia</u>	> 100%
<u>Menidia menidia</u>	42%

c. Solid Phase Bioassay (% mortality difference with respect to control)

<u>Palaemonetes sp.</u>	1.0	Negative number indicates
<u>Mercenaria mercenaria</u>	-1.0	Greater mortality in control.
<u>Nereis virens</u>	-1.0	

(\* statistical significance, 95% confidence level)

11. Properties of the dredged material:

a. Solubility: (% water): 63.3%

b. Density (gm/cc): N/A (Not Available)

c. % sand 7.3                   % silt 48.5                   % clay 44.2

12. Method of release: Immediate release from bottom opening doors

13. Procedure and site for subsequent barge and hopper washing:  
Hoppers flushed at authorized disposal site.

14. Approval dumping site:

a. Geographic position (latitude and longitude):

40°22' N (lat) 73°51'W (long)

b. Depth of water (meters): 20meters

c. Distance from nearest coast: 9 Km

15. Additional information: 10 - Day Bioaccumulation Data (ppm):  
PbC was statistically significant in Mytilus (4.12).

PCB   "       "       "       "       Nereis (0.05).

## IMCO REPORT ER 1145-2-308

## CY 1982 - Thimble Shoal Channel, VA

1. North Atlantic Division, Norfolk District
2. 14 March 1982
3. United States of America, Virginia  
Port of Loading: Thimble Shoal Channel, Norfolk, VA.
4. a. Description: Fine sand and silt, non-cohesive.  
b. Mode of dredging: Trailing hopper dredges, PADRE ISLAND and SUGAR ISLAND.  
c. Mode of transportation: Hopper dredge.
5. Slurry - non-cohesive fine sand and silt.
6. Quantity  
327,400 cubic meters  
16 Aug 82-21 Sep 82
7. PROJECT: 90 days.
8. Dumping Frequency: 3-4 times daily
9. NA
10. NA
11. Properties of dredged material  
a. 60 % H<sub>2</sub>O  
b. 1.8 gm/cc  
c. NA
12. Method of release: Immediate, bottom dump.
13. Hoppers flushed at authorized disposal site.
14. Dumping Site  
a. 36° 40' 48" N, 75° 54' 13" W  
b. 12 meters  
c. 7 km
15. NA

## CY 1982 - Chincoteague Inlet, VA

1. North Atlantic Division, Norfolk District
2. 14 March 1982
3. United States of America, Virginia  
Port of Loading: Chincoteague, Virginia
4. a. Description: Fine to Medium Sand  
b. Mode of dredging: Trailing hopper dredge MERMONTAU  
c. Mode of Transportation: Hopper dredge.
5. Slurry - non-cohesive sand
6. Quantity  
90,600 cubic meters  
10 Jul 82 - 1 Aug 82
7. PROJECT: 30 days
8. Dumping Frequency  
12 times daily
9. NA, material is clean sand
10. NA
11. NA
12. Method of Release: Immediate, bottom dump
13. Hoppers flushed at authorized disposal site
14. Dumping site  
a.  $37^{\circ} 51' 30''$  N,  $75^{\circ} 25' 30''$  W  
b. 6.5 meters  
c. 1.0 km
15. NA

CY 1982 - Cape Henry Channel, VA

1. North Atlantic Division, Norfolk District
2. 14 March 1982
3. United States of America, Virginia  
Port of Loading: Cape Henry Channel, VA
4. a. Description: Fine sand, non-cohesive  
b. Mode of dredging: Trailing hopper dredge SUGAR ISLAND  
c. Mode of Transportation: Hopper dredge.
5. Slurry - non-cohesive fine sand
6. Quantity  
325,600 cubic meters  
22 Sep 82 - 14 Nov 82
7. PROJECT: 90 days
8. Dumping Frequency  
3-4 times daily
9. NA
10. NA
11. Properties of the dredged material  
a. 60% H<sub>2</sub>O  
b. 1.9 gm/cc  
c. NA
12. Method of release: Immediate, bottom dump
13. Hoppers flushed at authorized disposal site
14. Dumping site  
a. 36° 49' 48" N, 75° 54' 13" W  
b. 12 meters  
c. 7 km
15. NA

CY 1982 - Cape Henry Channel, VA

1. North Atlantic Division, Norfolk District
2. 14 March 1982
3. United States of America, Virginia  
Port of loading: Cape Henry Channel, VA.
4. a. Description: Fine sand, non cohesive  
b. Mode of dredging: Trailing Hopper dredge GOETHALS  
c. Mode of transportation: Hopper dredge
5. Slurry - non-cohesive fine sand
6. Quantity  
21,000 cubic meters  
9 Jan 82 - 14 Jan 82
7. Project: 14 days
8. Dumping Frequency  
3 times daily
9. NA
10. NA
11. Properties of the dredged material  
a. 60% H<sub>2</sub>O  
b. 1.9 gm/cc  
c. NA
12. Method of release: Immediate, bottom dump
13. Hoppers flushed at authorized disposal site.
14. Dumping Site  
a. 36° 50' 05" N, 75° 54' 19" W  
b. 13 Meters  
c. 8 km
15. NA

**IMCO DREDGED MATERIAL OCEAN DISPOSAL REPORT  
CY 1982**

**1. Issuing Authority:**

Division: South Atlantic

District: Wilmington

2. Date issued: Not applicable

3. Country of origin of dredged material or other matter:

**United States of America, North Carolina**

Port of Loading: Wilmington

4. General description of dredged material, dredging, and transportation made:

a. Description: Noncohesive sand to cohesive muds

b. Mode of dredging: Trailing hopper dredge PADRE ISLAND

c. Mode of transportation: Hopper dredge

5. Form in which dredged material is presented for disposal:

## Slurry

6. Material quantity of material dumped in the ocean and dates of actual disposal during reporting calendar year:

114,038 cu. meters

1 Jan - 6 Jan 82

**7. Period for which permit is valid or project is scheduled:**

180 days (Fall/Winter period)

**8. Expected frequency of dumping:**

6 dumps per day, 7 days per week

#### 9. Chemical composition of the liquid phase of dredged material:

a. Liquid Phase Test results:

### (1) Nutrients:

(C) Metals — Data not available  
(D) Organics

b. Other analyses:

(1) Metals:

(2) Organics: Data not available

(3) Other:

10. Bioassay and Bioassessment Evaluations:

a. Liquid Phase: Limiting Permissible Concentration (LPC) not exceeded

b. Suspended Particulate Phase: LPC not exceeded

c. Solid Phase: LPC not exceeded

11. Properties of the dredged material:

a. Solubility (% water): 55%

b. Density (gm/cc): 1.500

c. pH: Unavailable

12. Method of release:

Immediate release from bottom opening doors

13. Procedure and site for subsequent barge and hopper washing:

Hoppers flushed at authorized disposal site

14. Approved dumping site:

a. Geographical position: 33°48'30"N 78°02'54"W

b. Depth of water: 13 meters

c. Distance from nearest coast: 4.8 kilometers

15. Additional information:

**IMCO DREDGED MATERIAL OCEAN DISPOSAL REPORT  
CY 1982**

**1. Issuing Authority:**

**Division: South Atlantic**

District: Wilmington

2. Date issued: Not applicable

3. Country of origin of dredged material or other matter:

**United States of America, North Carolina**

Port of Loading: Wilmington

4. General description of dredged material, dredging, and transportation made:

a. Description: Noncohesive sand to cohesive muds

b. Mode of dredging: Trailing hopper dredge MANHATTAN ISLAND

c. Mode of transportation: Hopper dredge

5. Form in which dredged material is presented for disposal:

## Slurry

6. Material quantity of material dumped in the ocean and dates of actual disposal during reporting calendar year:

536,500 cu. meters

27 Nov - 30 Dec 82

7. Period for which permit is valid or project is scheduled:

180 days

#### 8. Expected frequency of dumping:

6 dumps per day, 7 days per week

#### 9. Chemical composition of the liquid phase of dredged material:

#### a. Liquid Phase Test results:

### (1) Nutrients:

(2) Metals: Data not available

(3) Organics:

b. Other analyses:

- (1) Metals:
- (2) Organics: Data not available
- (3) Other:

10. Bioassay and Bioassessment Evaluations:

a. Liquid Phase: Limiting Permissible Concentration (LPC) not exceeded

- b. Suspended Particulate Phase: LPC not exceeded
- c. Solid Phase: LPC not exceeded

11. Properties of the dredged material:

- a. Solubility (% water): 55%
- b. Density (gm/cc): 1.500
- c. pH: Unavailable

12. Method of release:

Immediate release from bottom opening doors

13. Procedure and site for subsequent barge and hopper washing:

Hoppers flushed at authorized disposal site

14. Approved dumping site:

- a. Geographical position: 33°48'30"N 78°02'54"W
- b. Depth of water: 13 meters
- c. Distance from nearest coast: 4.8 kilometers

15. Additional information:

IMCO DREDGED MATERIAL OCEAN DISPOSAL REPORT  
CY 1982

1. Issuing Authority:

Division: South Atlantic

District: Wilmington

2. Date issued: Not applicable

3. Country of origin of dredged material or other matter:

United States of America, North Carolina

Port of Loading: Morehead City, N.C.

4. General description of dredged material, dredging, and transportation made:

a. Description: Noncohesive sand to cohesive muds

b. Mode of dredging: Trailing hopper dredge MANHATTAN ISLAND

c. Mode of transportation: Hopper dredge

5. Form in which dredged material is presented for disposal:

Slurry

6. Material quantity of material dumped in the ocean and dates of actual disposal during reporting calendar year:

729,523 cubic meters

14 May - 12 June 82

7. Period for which permit is valid or project is scheduled:

Annual - As needed

8. Expected frequency of dumping:

8 dumps per day, 7 days per week

9. Chemical composition of the liquid phase of dredged material:

a. Liquid Phase Test results:

(1) Nutrients:

(2) Metals: (Data not available)

(3) Organics:

b. Other analyses:

- (1) Metals:
- (2) Organics: Data not available
- (3) Other:

10. Bioassay and Bioassessment Evaluations:

a. Liquid Phase: Limiting Permissible Concentration (LPC) not exceeded

- b. Suspended Particulate Phase: LPC not exceeded
- c. Solid Phase: LPC not exceeded

11. Properties of the dredged material:

- a. Solubility (% water): 40%
- b. Density (gm/cc): 1.90
- c. pH: Unavailable

12. Method of release:

Immediate release from bottom opening doors

13. Procedure and site for subsequent barge and hopper washing:

Hoppers flushed at authorized disposal site

14. Approved dumping site:

- a. Geographical position: 34°39'45"N 76°42'W
- b. Depth of water: 15 meters
- c. Distance from nearest coast: 4.8 kilometers

15. Additional information:

IMCO DREDGED MATERIAL OCEAN DISPOSAL REPORT  
CY

1. Issuing Authority:

Division - South Atlantic      District - Charleston, SC

2. Date Issued: 4 March 1983

3. Country of Origin: United States of America, South Carolina  
Port of Loading: Charleston, SC

4. General Description:

a. Description: Silty clay with sand and shell

b. Dredging Mode: Hopper Dredge

c. Transporting Mode: Hopper Dredge (McFARLAND)

5. Material Disposal Form: Slurry, non-cohesive

6. Quantity and Dates: 301,820 Cubic Meters  
1 Jan - 25 Jan 82

7. Period of Permit or Schedule: Not Applicable

8. Frequency of Dumping: Average 9 loads daily, seven days per week

9. Chemical Composition (Liquid Phase): See attached.

a. Liquid Phase Tests -

b. Other Analyses -

10. Bioassay and Evaluations: See attached

a. Liquid Phase -

b. Suspended Particulate Phase -

c. Solid Phase -

11. Properties: See attached

a. Solubility -

b. Density -

c. pH -

12. Method of Release: Immediate release from bottom opening doors.

13. Procedure and Site for Barge or Hopper Washing: Hoppers flushed at approved dumping site.

Incl. 1

Page 2 of 2

14. Approved Dumping Site:

- a. Geographical Position (latitude and longitude) - See attached
- b. Depth of Water (meters) - 10 Meters
- c. Distance to Nearest Coast - 8.5 kilometers

15. Additional Information: NONE

## IMCO DREDGED MATERIAL OCEAN DISPOSAL REPORT

CY

## 1. Issuing Authority:

Division - South AtlanticDistrict - Charleston, SC

2. Date Issued: 4 March 1983

3. Country of Origin: United States of America, South Carolina

Port of Loading: Georgetown, SC

## 4. General Description:

a. Description: Silty sand

b. Dredging Mode: Hopper Dredge

c. Transporting Mode: Hopper Dredge (PADRE ISLAND)

5. Material Disposal Form: Slurry, non-cohesive

6. Quantity and Dates: 290,518 cubic meters

25 Jul - 7 Aug 1982

7. Period of Permit or Schedule: NOT APPLICABLE

8. Frequency of Dumping: Average 20 loads daily, seven days per week.

9. Chemical Composition (Liquid Phase): See attached

a. Liquid Phase Tests -

b. Other Analyses -

10. Bioassay and Evaluations: See attached

a. Liquid Phase -

b. Suspended Particulate Phase -

c. Solid Phase -

11. Properties: See attached

a. Solubility -

b. Density -

c. ph -

12. Method of Release: Immediate release from bottom opening doors.

13. Procedure and Site for Barge or Hopper Washing: Hoppers flushed at approved dumping site.

Incl. 1

14. Approved Dumping Site:

- a. Geographical Position (latitude and longitude) - See attached.
- b. Depth of Water (meters) - 9 Meters
- c. Distance to Nearest Coast - 7.4 Kilometers

15. Additional Information: NONE

## IMCO Report on Ocean Dumping - CY 82

1. Issuing authority:

Division      South Atlantic      District      Savannah

2. Date Issued:    May 1983

3. Country of origin of dredged material or other matter:  
United States of America, Georgia

Port of Loading (activity location):    Brunswick Harbor

4. General description of dredged material, dredging, and transportation made:

a. Description:    Sand (predominantly)

b. Mode of Dredging: Trailing Hopper Dredges "DODGE ISLAND" and  
"PADRE ISLAND"

c. Mode of transportation:    Hopper Dredges

5. Form in which dredged material is presented for disposal: Slurry, sand

6. Material quantity (volume in metric units, cubic meters) of material dumped  
in the ocean and dates of actual disposal during reporting calendar year:  
577,122m<sup>3</sup>    (754,803 CY)

7. Period for which permit is valid or project is scheduled:  
2 - 25 January 1982    24 days

8. Expected frequency of dumping: 22 loads/day - 7 days/week

9. Chemical composition of the liquid phase of dredged material as described in the 11 Jan 77 Federal Register which contains the Environmental Protection Agency's final regulations and criteria:

Samples of sediments taken from three sites in Brunswick Harbor were analyzed. Values are in milligrams per litre (=ppm) except as noted.

a. Liquid Phase test results:

<u>Constituent</u>	<u>Seawater Control</u>	<u>Sample Sites</u>		
		<u>B1</u>	<u>B2</u>	<u>B3</u>
NO <sub>2</sub> -N	0.03	< 0.02	0.09	0.08
NO <sub>3</sub> -N	0.14	.04	.36	.20
NH <sub>3</sub> -N	< .1	2.4	4.6	13.
TKN-N	0.2	3.9	5.4	14.
orthophosphorus	.07	.39	< .03	.07
total phosphorus	.07	.52	.07	.23
TOC-C	3.5	32.	12.	13.
Oil and Grease	3.	14.	7.	8.
As	< .01	.02	.02	< .01
Be	< .3	< .3	< .3	< .3
Cd	.13	.14	.13	.12
Cr	< .3	< .3	< .3	< .3
Cu	.04	.04	.04	.04
Fe	.71	.89	3.3	3.8
Hg (micrograms per litre)	< .2	< .2	< .2	< .2
Ni	.65	.62	.61	.61
Pb	.82	.82	.73	.82
Se (micrograms per litre)	< 2.	< 2.	< 2.	< 2.
Zn	.13	.13	.08	.11

b. Other analyses:

<u>Constituent</u>	<u>Seawater Control</u>	<u>Sample Sites</u>		
		<u>B1</u>	<u>B2</u>	<u>B3</u>
Salinity	32.67	32.06	31.23	31.39
pH	7.6	7.2	6.7	6.9

No chlorinated hydrocarbons were detectable in any of the samples.

10. Bioassay and Bioassessment Evaluations: Samples were taken from three sites in inner Brunswick Harbor in 1979 (these three sites in the vicinity of Andrews Island, do not contribute to ocean disposal, but do represent a "worst case" comparison). Ratios are control/test sediments. Numbers are total number of survivors at the end of the test. All differences from control are not significant unless marked by an asterisk (\*).

		<u>Sample Sites</u>		
		<u>B1</u>	<u>B2</u>	<u>B3</u>
<u>a. Liquid Phase Bioassay:</u>				
Sheepshead minnows	30/30	30/30	30/30	
Mysids	28/15*	28/17*	28/8*	
Zooplankton (48 hr.)	27/2*	27/5*	27/0*	
<u>b. Suspend Particulate Phase Bioassay:</u>				
Sheepshead minnows	30/30	30/30	30/30	
Mysids	28/14*	28/17*	28/9*	
Zooplankton (48 hr.)	27/14*	27/8*	27/2*	
<u>c. Solid Phase Bioassay:</u>				
Quahog clams	98/97	98/97	98/100	
Grass shrimp	98/82	98/100	98/98	
Mysids	45/32	45/38	45/42	
Hausterids	84/79	84/56*	84/47*	

\* Significantly different from control ( $p \leq 0.05$ )

11. Properties of the dredged material:

- a. Solubility (% water): N/A
- b. Density (gm/cc): 1,800 gm/cc
- c. pH: See Section 9.b

12. Method of release: Immediate release from bottom opening doors

13. Procedure and site for subsequent barge and hopper washing: At site

14. Approved-dumping-site:

- a. Geographical position (latitude and longitude): 31°01'N 81°17'W
- b. Depth of water (meters): -8.5 to -12.2 m (-28 to -40 feet) at mlw
- c. Distance from nearest coast: 10.65 km (5.75 nmi)

15. Additional information:

## IMCO Report on Ocean Dumping - CY 82

1. Issuing authority:

Division      South Atlantic      District      Savannah

2. Date Issued: May 1983

3. Country of origin of dredged material or other matter:  
United States of America, Georgia

Port of Loading (activity location): Kings Bay

4. General description of dredged material, dredging, and transportation made:

a. Description: Sand

b. Mode of Dredging: Trailing Hopper Dredge "COMBER"

c. Mode of transportation: Hopper Dredge

5. Form in which dredged material is presented for disposal: Slurry, sand

6. Material quantity (volume in metric units, cubic meters) of material dumped in the ocean and dates of actual disposal during reporting calendar year:  
91,437m<sup>3</sup> (119,588 CY)

7. Period for which permit is valid or project is scheduled:  
29 July - 5 August 1982      8 days

8. Expected frequency of dumping: 6 loads/day - 7 days/week

9. Chemical composition of the liquid phase of dredged material as described in the 11 Jan 77 Federal Register which contains the Environmental Protection Agency's final regulations and criteria:

a. Liquid Phase Test Results: N/A

b. Other Analyses: N/A

10. Bioassay and Bioassessment Evaluations:

a. Liquid Phase Bioassay: N/A

b. Suspend Particulate Phase Bioassay: N/A

c. Solid Phase Bioassay: N/A

11. Properties of the dredged material:

- a. Solubility (% water): N/A
- b. Density (gm/cc): 1.890 gm/cc
- c. pH: N/A

12. Method of release: Immediate release from bottom opening doors

13. Procedure and Site for Subsequent barge and hopper washing: At site

14. Approved dumping site:

- a. Geographical position (latitude and longitude): 31°41'N 81°18'W
- b. Depth of water (meters): -10.7 to -12.2 m (-35 to -40 feet) at mlw
- c. Distance from nearest coast: 10.6 km (5.7 nmi)

15. Additional information:

AD-A138 832

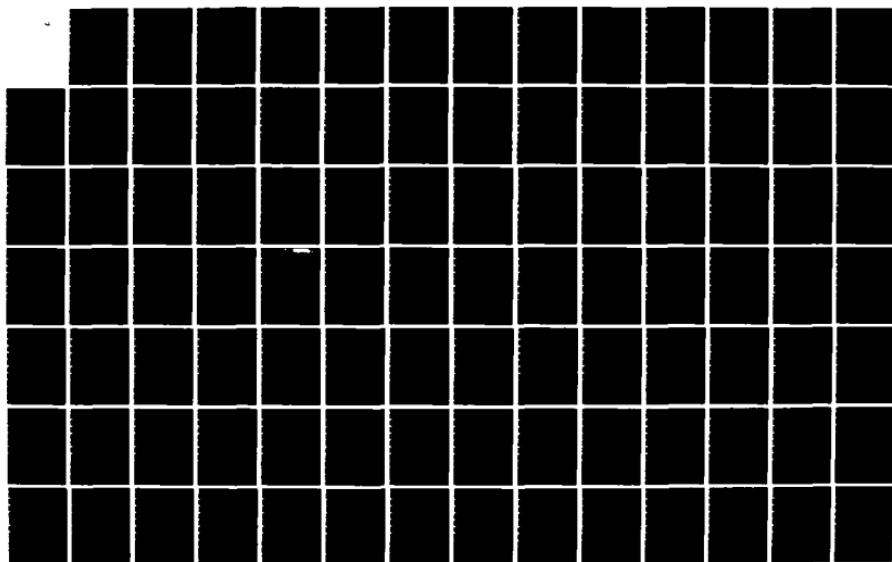
OCEAN DUMPING REPORT FOR CALENDAR YEAR 1982 DREDGED  
MATERIAL (U) CORPS OF ENGINEERS FORT BELVOIR VA WATER  
RESOURCES SUPPORT CENTER OCT 83 WRSC-83-SR-1

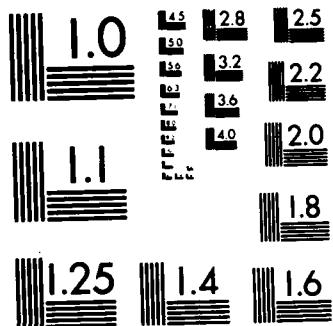
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MICROCOPY RESOLUTION TEST CHART  
NATIONAL BUREAU OF STANDARDS-1963-A

IMCO REPORT ON OCEAN DUMPING - CY 821. Issuing authority:

Division: South Atlantic District: Jacksonville

2. Date issued: 4 April 1981 (Award)3. Country of origin of dredged material or other matter: United States.Port of loading (activity location): Port Everglades Harbor, FL.4. General description of dredged material, dredging, and transportation made:a. Description: Sand, fine quartz, slightly silty, very shelly, brown to dark brown.b. Mode of dredging: Dragline.c. Mode of transportation: Scows.5. Form in which dredged material is presented for disposal: Noncohesive sand with shell.6. Material quantity (volume in metric units, cubic meters) of material dumped in the ocean and dates of actual disposal during reporting calendar year: 8,219 cubic meters, February, May & June 1982.7. Period for which permit is valid or project is scheduled: May 1981 - January 1983.8. Expected frequency of dumping: Infrequently.9. Chemical composition of the dredged material as reported in elutriate test concentrations or "bulk" or "total" analyses as appropriate:a. Elutriate test results:(1) Nutrients:(2) Metals:(3) Organics:

b. Other analyses:

(1) Metals:

(2) Organics:

(3) Other:

10. Bioassay and bioassessment evaluation:

a. Liquid phase bioassay:

b. Suspended particulate phase bioassay:

c. Solid phase bioassay:

11. Properties of the dredged material:

a. Solubility (% water):

b. Density (gm/cc):

c. pH:

12. Method of release:

Time to release:

13. Procedure and site for subsequent barge and hopper washing:

14. Approved dumping site:

a. Geographical position (latitude and longitude):

25°07'00", 80°03'30"; 26°06'30", 80°03'30";  
26°06'30", 80°03'41"; 26°07'00", 80°03'41".

b. Depth of water (meters): 61.

c. Distance (kilometers) from nearest coast: 2.4.

15. Additional information - relevant factors listed in Annex III of the Convention, e.g., toxicity, other biological properties:

6/25 Pg. 1 of 3

IMCO REPORT ON OCEAN DUMPING - CY 82

1. Issuing authority:

Division: South Atlantic

District: Jacksonville

2. Date issued: May 1981.

3. Country of origin of dredged material or other matter: United States.

Port of loading (activity location): Fernandina Harbor, Florida.

4. General description of dredged material, dredging, and transportation made:

a. Description: Gray and black organic - silty and clay sizes.

b. Mode of dredging: Hopper dredge - suction.

c. Mode of transportation: Hopper dredge.

5. Form in which dredged material is presented for disposal: Slurry, non-cohesive.

6. Material quantity (volume in metric units, cubic meters) of material dumped in the ocean and dates of actual disposal during reporting calendar year: 378,108 cubic meters, June 82 - Sep 82.

7. Period for which permit is valid or project is scheduled: June 82 - Sep 82.

8. Expected frequency of dumping: Daily.

9. Chemical composition of the dredged material as reported in elutriate test concentrations or "bulk" or "total" analyses as appropriate:

a. Elutriate test results:

(1) Nutrients: Range

NH4-N (mg/l)-----	0.25 - 0.26
Ortho-P (mg/l)-----	0.04 - 0.08

(2) Metals: Range

Hg-----	<0.0001
Mn-----	0.0008 - 0.0080
Pb-----	<0.0002
Zn-----	0.035 0.061

P1. 2 of 3

Fe-----	0.0080 - 0.0180
Se-----	<0.0002 - 0.0004
Cd-----	0.155 - 0.325
Cu-----	0.0003 - 0.0004
Ag-----	<0.0002
Ni-----	0.0238 - 0.0450

(3) Organics:

Oil & Grease - 0.2 - 0.6  
PGB - None detected.

b. Other analyses:

(1) Metals:

(2) Organics:

(3) Other:

10. Bioassay and bioassessment evaluation:

a. Liquid phase bioassay:

b. Suspended particulate phase bioassay:

c. Solid phase bioassay:

11. Properties of the dredged material:

a. Solubility (% water): Not available.

b. Density (gm/cc): 2590 (Absolute).

c. pH: Not available.

12. Method of release: Bottom dump.

Time to release: Immediately.

13. Procedure and site for subsequent barge and hopper washing: Hoppers flushed at disposal area.

14. Approved dumping site:

a. Geographical position (latitude and longitude):

30°42'00", 81°19'05"; 30°42'00", 81°17'55";  
30°41'00", 81°17'55"; 30°41'00", 81°19'05".

- b. Depth of water (meters): 10.7 meters.
- c. Distance (kilometers) from nearest coast: 10.5 kilometers.
15. Additional information - relevant factors listed in Annex III of the Convention, e.g., toxicity, other biological properties: None.

at 2

IMCO REPORT ON OCEAN DUMPING - CY 82

1. Issuing authority:

Division: South Atlantic      District: Jacksonville

2. Date issued: August 81 (Award).

3. Country of origin of dredged material or other matter: Puerto Rico.

Port of loading (activity location): Arecibo Harbor.

4. General description of dredged material, dredging, and transportation made:

a. Description: Fill with sand and shell.

b. Mode of dredging: Clamshell w/scows.

c. Mode of transportation: Scows.

5. Form in which dredged material is presented for disposal: Non-cohesive sand with shell.

6. Material quantity (volume in metric units, cubic meters) of material dumped in the ocean and dates of actual disposal during reporting calendar year: 152,644 cubic meters from 14 August 1982 to 27 September 1982.

7. Period for which permit is valid or project is scheduled: 14 August - 27 September 1982.

8. Expected frequency of dumping: Daily.

9. Chemical composition of the dredged material as reported in elutriate test concentrations or "bulk" or "total" analyses as appropriate:

a. Elutriate test results:

(1) Nutrients:

(2) Metals:

(3) Organics:

b. Other analyses:

(1) Metals:

(2) Organics:

(3) Other:

10. Bioassay and bioassessment evaluation:

- a. Liquid phase bioassay:
- b. Suspended particulate phase bioassay:
- c. Solid phase bioassay:

11. Properties of the dredged material:

- a. Solubility (% water):
- b. Density (gm/cc):
- c. pH:

12. Method of release:

Time to release:

13. Procedure and site for subsequent barge and hopper washing:

14. Approved dumping site:

- a. Geographical position (latitude and longitude):

18°31'00", 66°43'47"; 18°31'00", 66°42'45"  
18°30'00", 66°42'45"; 18°30'00", 66°43'47".

- b. Depth of water (meters): 201.

- c. Distance (kilometers) from nearest coast: 1.6.

15. Additional information - relevant factors listed in Annex III of the Convention, e.g., toxicity, other biological properties:

IMCO REPORT ON OCEAN DUMPING - CY 82

1. Issuing authority:

Division: South Atlantic      District: Jacksonville

2. Date issued: 22 September 1982 (Award).

3. Country of origin of dredged material or other matter: United States.

Port of loading (activity location): Ft. Pierce Harbor.

4. General description of dredged material, dredging, and transportation made:

a. Description: Sand, fine to medium, quartz, silty dark gray.

b. Mode of dredging: Dredge barge w/dragline.

c. Mode of transportation: Scows.

5. Form in which dredged material is presented for disposal: In solid form.

6. Material quantity (volume in metric units, cubic meters) of material dumped in the ocean and dates of actual disposal during reporting calendar year: 12,840 cubic meters dumped in December 1982.

7. Period for which permit is valid or project is scheduled: September 1982 - 31 March 1983.

8. Expected frequency of dumping: Daily.

9. Chemical composition of the dredged material as reported in elutriate test concentrations or "bulk" or "total" analyses as appropriate:

a. Elutriate test results:

(1) Nutrients:

(2) Metals:

(3) Organics:

b. Other analyses:

(1) Metals:

(2) Organics:

(3) Other:

10. Bioassay and bioassessment evaluation:

  - a. Liquid phase bioassay:
  - b. Suspended particulate phase bioassay:
  - c. Solid phase bioassay:
11. Properties of the dredged material:

  - a. Solubility (% water):
  - b. Density (gm/cc):
  - c. pH:
12. Method of release: Bottom dump.  
Time to release: Immediate.
13. Procedure and site for subsequent barge and hopper washing: At disposal site.
14. Approved dumping site:

  - a. Geographical position (latitude and longitude):  
27°28'30", 80°12'3"; 27°28'30", 80°11'27";  
27°27'30", 80°11'27"; 27°27'30, 80°12'33".
  - b. Depth of water (meters): 15.2
  - c. Distance (kilometers) from nearest coast: 6.4
15. Additional information - relevant factors listed in Annex III of the Convention, e.g., toxicity, other biological properties:

? ? ?

IMCO REPORT ON OCEAN DUMPING - CY 82

1. Issuing authority:

Division: South Atlantic      District: Jacksonville

2. Date issued: September 1981 (Award).

3. Country of origin of dredged material or other matter: United States.

Port of loading (activity location): Tampa Harbor, Florida.

4. General description of dredged material, dredging, and transportation made:

a. Description: Silt, soft gray.

b. Mode of dredging: Bucket dredge.

c. Mode of transportation: Scow and tug.

5. Form in which dredged material is presented for disposal: Soupy silt.

6. Material quantity (volume in metric units, cubic meters) of material dumped in the ocean and dates of actual disposal during reporting calendar year: 388,723 cubic meters. Jan 82 - Mar 82.

7. Period for which permit is valid or project is scheduled: Nov 81 - Mar 82.

8. Expected frequency of dumping: Daily.

9. Chemical composition of the dredged material as reported in elutriate test concentrations or "bulk" or "total" analyses as appropriate:

a. Elutriate test results:

(1) Nutrients:

(2) Metals:

(3) Organics:

b. Other analyses: Water Column

(1) Metals: (Dissolved) (mg/l)

As-----<0.02

Hg-----0.0004

Cd-----<0.005

Cv-----0.11

? ? ?

Cu-----0.06  
Fe-----<0.05  
Pb-----0.03  
Ni-----0.29  
Zn-----0.06

(2) Organics: Dissolved mg/l  
Organic Carbon-----3.5

(3) Other: (Dissolved)

TKN-N-----0.4  
NH4-N-----<0.1  
NO3-N-----<0.1  
NO2-N-----<0.01  
PO4-P-----0.8  
O-PO4-P-----0.6

(4) Oil & Grease-----<0.10

10. Bioassay and bioassessment evaluation:

- a. Liquid phase bioassay:
- b. Suspended particulate phase bioassay:
- c. Solid phase bioassay:

11. Properties of the dredged material:

- a. Solubility (% water):
- b. Density (gm/cc):
- c. pH:

12. Method of release: Dump Scow.

Time to release: Minutes.

13. Procedure and site for subsequent barge and hopper washing: Wash down at work site, Tampa Harbor, Florida.

14. Approved dumping site:

- a. Geographical position (latitude and longitude):

27°37'34", 82°59'19"; 27°36'43", 82°59'13"  
27°36'37", 83°00'03"; 27°37'28", 83°00'09".
- b. Depth of water (meters): 15 meters.

c. Distance (kilometers) from nearest coast: 25 kilometers.

15. Additional information - relevant factors listed in Annex III of the Convention, e.g., toxicity, other biological properties:

IMCO REPORT ON OCEAN DUMPING - CY 82

1. Issuing authority:

Division: South Atlantic

District: Jacksonville

2. Date issued:

3. Country of origin of dredged material or other matter: United States.

Port of loading (activity location): Tampa Harbor, FL.

4. General description of dredged material, dredging, and transportation made:

a. Description: Sand, fine to medium quartz; shell with some clay.

b. Mode of dredging: Pipeline dredge and hopper dredge.

c. Mode of transportation: Pipeline and hopper.

5. Form in which dredged material is presented for disposal: Sand/clay shell materials - solids.

6. Material quantity (volume in metric units, cubic meters) of material dumped in the ocean and dates of actual disposal during reporting calendar year: 1,061,154 cubic meters; Jan 82 - Jul 82.

7. Period for which permit is valid or project is scheduled: Jan 82 - Jul 82.

8. Expected frequency of dumping: Daily.

9. Chemical composition of the dredged material as reported in elutriate test concentrations or "bulk" or "total" analyses as appropriate:

a. Elutriate test results:

(1) Nutrients:

(2) Metals:

(3) Organics:

b. Other analyses: Water Column

(1) Metals: (Dissolved)

As-----<0.02 mg/l

Hg-----0.0004 mg/l

Cd-----<0.005 mg/l  
Cr-----0.11 mg/l  
Cu-----0.06 mg/l  
Fe-----<0.05 mg/l  
Pb-----0.03 mg/l  
N.-----0.29 mg/l  
Zn-----0.06 mg/l

(2) Organics: (Dissolved)

Organic Carbon-----3.5 mg/l

(3) Other analyses:

(a) Metals:

(b) Organics:

(c) Other: TKN-N (Dissolved)-----0.4 mg/l  
NH4-N (Dissolved)-----<0.1 mg/l  
NO3-N (Dissolved)-----<0.1 mg/l  
NO2-N (Dissolved)-----<0.01 mg/l  
PO4-P (Dissolved)-----0.8 mg/l  
O-PO4-P (Dissolved)-----0.6 mg/l  
0.14 Grease-----<0.10 mg/l

10. Bioassay and bioassessment evaluation:

- a. Liquid phase bioassay: None.
- b. Suspended particulate phase bioassay: None.
- c. Solid phase bioassay: None.

11. Properties of the dredged material:

- a. Solubility (% water):
- b. Density (gm/cc):
- c. pH:

12. Method of release: Pipeline and bottom dump.

Time to release: Throughout dredging cycle of pipeline and immediately from bottom dump.

13. Procedure and site for subsequent barge and hopper washing: Hoppers are flushed at work site.

14. Approved dumping site:

a. (1) Geographical position (latitude and longitude):

27°35'23", 82°55'33"; 27°35'29", 82°54'26";  
27°35'10", 82°54'24"; 27°35'03", 82°55'36".

(2) Depth of water (meters): 11.5.

(3) Distance (kilometers) from nearest coast: 7.4.

(4) Total yardage (cubic meters): 440,076 (pipeline dredge).

b. (1) Geographical position (latitude and longitude):

27°35'11", 82°57'23"; 27°34'52", 82°57'20";  
27°34'45", 82°58'27"; 27°35'05", 82°58'29".

(2) Depth of water (meters): 12.1.

(3) Distance (kilometers) from nearest coast: 9.7.

(4) Total yardage (cubic meters): 350,816 (hopper dredge).

c. (1) Geographical position (latitude and longitude):

27°35'20", 82°55'55"; 27°35'01", 82°55'52";  
27°34'54", 82°56'58"; 27°35'14", 82°57'01".

(2) Depth of water (meters): 12.3.

(3) Distance (kilometers) from nearest coast: 8.5.

(4) Total yardage (cubic meters): 270,262 (hopper dredge).

15. Additional information - relevant factors listed in Annex III of the Convention, e.g., toxicity, other biological properties: These disposal areas are utilized for the New Work Construction currently in progress in Tampa Harbor and will not be used for maintenance dredging.

IMCO REPORT ON OCEAN DUMPING - CY 82

1. Issuing authority:

Division: South Atlantic      District: Jacksonville

2. Date issued: February 1981 (Award).

3. Country of origin of dredged material or other matter: United States.

Port of loading (activity location): Tampa Harbor, Florida.

4. General description of dredged material, dredging, and transportation made:

a. Description: Section 2C - Sand, fine to medium quartz.  
Shell, clay varies stiff to silty compact.

Section 4 (Rem) - Sand, shelly silt.

b. Mode of dredging: Bucket dredge.

c. Mode of transportation: Scow and tug.

5. Form in which dredged material is presented for disposal:

Section 4 (Rem) - Sand and shell in fairly solid form.

Section 2C - Hard sandy/clay shell material solids.

6. Material quantity (volume in metric units, cubic meters) of material dumped in the ocean and dates of actual disposal during reporting calendar year: 1,866,709 cubic meters. Jan 82 through Dec 82.

7. Period for which permit is valid or project is scheduled: Through November 1983.

8. Expected frequency of dumping: Daily.

9. Chemical composition of the dredged material as reported in elutriate test concentrations or "bulk" or "total" analyses as appropriate:

a. Elutriate test results:

(1) Nutrients:

(2) Metals:

(3) Organics:

b. Other analyses: (Water Column)

(1) Metals: (Dissolved)

As-----<0.02 mg/l  
Hg-----0.0004 mg/l  
Cd-----<0.005 mg/l  
Cr-----0.11 mg/l  
Cu-----0.06 mg/l  
Fe-----<0.05 mg/l  
Pb-----0.03 mg/l  
N.-----0.29 mg/l  
Zn-----0.06 mg/l

(2) Organics: (Dissolved)

Organic Carbon-----3.5 mg/l

(3) Other analyses:

(a) Metals:

(b) Organics:

(c) Other:

TKN-N (Dissolved)-----0.4 mg/l  
NH4-N (Dissolved)-----<0.1 mg/l  
NO3-N (Dissolved)-----<0.1 mg/l  
NO2-N (Dissolved)-----<0.01 mg/l  
PO4-P (Dissolved)-----0.8 mg/l  
O-PO4-P (Dissolved)-----0.6 mg/l  
0.14 Grease-----<0.10 mg/l

10. Bioassay and bioassessment evaluation:

- Liquid phase bioassay: None.
- Suspended particulate phase bioassay: None.
- Solid phase bioassay: None.

11. Properties of the dredged material:

- Solubility (% water):
- Density (gm/cc):
- pH:

12. Method of release: Dump Scow.

Time to release: Minutes.

13. Procedure and site for subsequent barge and hopper washing: Wash down at work site, Tampa Harbor, Florida.

14. Approved dumping site:

a. Geographical position (latitude and longitude):

27°37'34", 82°59'19"; 27°36'43", 82°59'13";  
27°36',37", 83°00'03"; 27°37'28", 83°00'09".

b. Depth of water (meters): 15 meters.

c. Distance (kilometers) from nearest coast: 25 kilometers.

15. Additional information - relevant factors listed in Annex III of the Convention, e.g., toxicity, other biological properties: None.

March 1983

US ARMY ENGINEER DISTRICT, MOBILE  
IMCO Report on Ocean Dumping - CY82

1. Issuing Authority:

Division: South Atlantic

District: Mobile

2. Date Issued:

3. Country of origin of dredged material or other matter:

United States of America.

Port of Loading (activity location): Gulfport Harbor, Mississippi

4. General description of dredged material, dredging, and transportation made:

a. Description: Silty-clay with low liquid limits (ML-CL)

b. Mode of Dredging: Contract Dredge, LOUISIANA

c. Mode of Transportation: Pipeline

5. Form in which dredged material is presented for disposal:

Slurry, Noncohesive Character

6. Material quantity (volume in metric units, cubic meters) of material dumped in the ocean and dates of actual disposal during reporting calendar year:

77,341 cubic meters

19 September thru 3 October 1982

7. Period for which permit is valid or project is scheduled: EPA Interim Agreement.

8. Expected frequency of dumping: 12 hours per day that dredging can be performed; dredging performed 7 of the 14 days.

9. Chemical composition of the dredged material as reported in elutriate test concentrations or "bulk" or "total" analyses as appropriate:

a. Elutriate test results:

(1) Nutrients: (Units are in ppm)

Ammonia Nitrogen	0.32
Total Kjeldahl Nitrogen	13.10
Phosphorous	0.417

(2) Metals: (Units are in ppb)

Hg	0.2	Ni	1.8
As	21.0	Cr	0.8
Cu	7.0	Fe++	10.0
Zn	0.2		
Cd	0.6		
Pb	1.0		

b. Other analyses: (Bulk)

(1) Metals: (Units are mg/kg)

Hg	0.2	Ni	12.3
As	4.3	Cr	28.7
Cu	10.4	Fe++	0.3
Zn	62.6		
Cd	0.39		
Pb	21.6		

(2) Other:

Volatile Solids	9.89%
Total Phosphate	51.39 mg/KgP
TKN	1285 mg/KgN
Ammonia Nitrogen	80.4 mg/KgN
Oil and Grease	430 mg/Kg
COD	24.75 mg/Kg X 10 <sup>3</sup>
TOC	9.27 mg/Kg X 10 <sup>3</sup>

- 6-31-69
10. Bioassay and Bioassessment Evaluations:
- Liquid Phase Bioassay: Not required.
  - Suspend Particulate Phase: Not required.
  - Solid Phase Bioassay: Not required.
11. Properties of the dredged material:
- Solubility (% Water): Not available.
  - Density (gm/cc): 1.983
  - pH: 7.5
12. Method of release: Pipeline below surface of water.  
Time to release: Approximately 84 hours.
13. Procedure and site for subsequent barge and hopper washing:  
Pipeline is flushed at authorized disposal site.
14. Approved dumping site:
- Geographical position (latitude and longitude): 30°10'N, 89°00'W
  - Depth of water (meters): 8
  - Distance (kilometers) from nearest coast: 13; 1.4 Kilometers from offshore Island.

15. Additional information - relevant factors listed in Annex III of the Convention, e.g. toxicity, other biological properties:

Eh (m volts) 114

Pesticides analyses for one sample are as follows:

<u>PESTICIDE</u>	<u>CONCENTRATION UG/KG</u>	<u>MINIMUM DETECTABLE LEVEL</u>
Aldrin	N.D.	0.277
Chlordane	N.D.	2.484
Dieldrin	N.D.	0.381
DDD (TDE)	N.D.	1.020
DDE	N.D.	0.985
DDT	7.098	2.509
Endrin	N.D.	0.540
Heptachlor	N.D.	0.139
Heptachlor Epoxide	N.D.	0.234
Lindane	N.D.	0.143
Methoxychlor	N.D.	3.310
Mirex	N.D.	0.923
Toxaphen	N.D.	19.859
Diazinon	N.D.	0.412
Guthion	N.D.	11.998
Malthion	N.D.	5.958
Methyl Parathion	N.D.	7.058
Parathion	N.D.	7.034
PCB (AR 1242)	N.D.	3.475
PCB (AR 1242)	N.D.	6.533
PCB (AR 1260)	N.D.	11.636

Notes: Results are expressed on a dry weight basis.  
N.D. = Nondetectable.

SAMOP-0

March 1983

US ARMY ENGINEER DISTRICT, MOBILE  
IMCO Report on Ocean Dumping - CY82

1. Issuing Authority:

Division: South Atlantic

District: Mobile

2. Date Issued:3. Country of origin of dredged material or other matter:

United States of America.

Port of Loading (activity location): Mobile Harbor, Alabama4. General description of dredged material, dredging, and transportation made:a. Description: Silty-clay with low liquid limits (ML-CL)b. Mode of Dredging: Hopper Dredge MERMONTAUc. Mode of Transportation: Hopper Dredge5. Form in which dredged material is presented for disposal:

Slurry, Noncohesive Character

6. Material quantity (volume in metric units, cubic meters) of material dumped in the ocean and dates of actual disposal during reporting calendar year:

302,813 cubic meters

11 December thru 31 December 1982

7. Period for which permit is valid or project is scheduled: EPA Interim Agreement.8. Expected frequency of dumping: 20 times daily, 5 days a week

9. Chemical composition of the dredged material as reported in elutriate test concentrations or "bulk" or "total" analyses as appropriate:

a. Elutriate test results:

(1) Nutrients: (Units are in ppm)

Ammonia Nitrogen	1.05
Total Kjeldahl Nitrogen	3.23
Phosphorous	0.340

(2) Metals: (Units are in ppb)

Hg	0.3	Ni	3.1
As	10.0	Cr	0.5
Cu	1.0	Fe++	22.0
Zn	22.4		
Cd	0.2		
Pb	2.3		

b. Other analyses: (Bulk)

(1) Metals: (Units are mg/kg)

Hg	0.68	Ni	5.35
As	1.05	Cr	13.6
Cu	3.5	Fe++	0.65
Zn	7.7		
Cd	0.1		
Pb	0.5		

(2) Other:

Volatile Solids	0.39%
Total Phosphate	39.13 mg/KgP
TKN	139.4 mg/KgN
Ammonia Nitrogen	36.7 mg/KgN
Oil and Grease	473 mg/Kg
COD	2.59 mg/Kg X 10 <sup>3</sup>
TOC	0.97 mg/Kg X 10 <sup>3</sup>

10. Bioassay and Bioassessment Evaluations:

- a. Liquid Phase Bioassay: Not required.
- b. Suspend Particulate Phase: Not required.
- c. Solid Phase Bioassay: Not required.

11. Properties of the dredged material:

- a. Solubility (% Water): Not Available.
- b. Density (gm/cc): 1.983
- c. pH: 7.5

12. Method of release: Bottom Dump

Time to release: 13 Minutes

13. Procedure and site for subsequent barge and hopper washing:

Dredge hopper is flushed at authorized disposal site.

14. Approved dumping site:

- a. Geographical position (latitude and longitude): 30°09'N, 88°07'W
- b. Depth of water (meters): 10
- c. Distance (kilometers) from nearest coast: 6.7

15. Additional information - relevant factors listed in Annex III of the Convention, e.g. toxicity, other biological properties:

Eh (m volts) 308

Pesticides analyses for one sample are as follows:

<u>PESTICIDE</u>	<u>CONCENTRATION UG/KG</u>	<u>MINIMUM DETECTABLE LEVEL</u>
Aldrin	N.D.	0.229
Chlordane	N.D.	2.055
Dieldrin	N.D.	0.315
DDD (TDE)	N.D.	0.844
DDE	N.D.	0.815
DDT	N.D.	1.066
Endrin	N.D.	0.447
Heptachlor	N.D.	0.115
Heptachlor Epoxide	N.D.	0.193
Lindane	N.D.	0.118
Methoxychlor	N.D.	2.738
Mirex	N.D.	0.763
Toxaphen	N.D.	16.430
Diazinon	N.D.	0.341
Guthion	N.D.	9.926
Malthion	N.D.	4.929
Methyl Parathion	N.D.	5.839
Parathion	N.D.	5.819
PCB (AR 1242)	N.D.	5.405
PCB (AR 1260)	N.D.	6.332

Notes: Results are expressed on a dry weight basis.

N.D.= Nondetectable.

SAMOP-0

March 1983

US ARMY ENGINEER DISTRICT, MOBILE  
IMCO Report on Ocean Dumping - CY82

**1. Issuing Authority:**

Division: South Atlantic

District: Mobile

**2. Date Issued:**

**3. Country of origin of dredged material or other matter:**

United States of America.

Port of Loading (activity location): Panama City Harbor, Florida

**4. General description of dredged material, dredging, and transportation made:**

a. Description: White sand

b. Mode of Dredging: Hopper Dredge MERMONTAU

c. Mode of Transportation: Hopper Dredge

**5. Form in which dredged material is presented for disposal:**

Slurry, Noncohesive Character

**6. Material quantity (volume in metric units, cubic meters) of material dumped in the ocean and dates of actual disposal during reporting calendar year:**

94,668 cubic meters

20 November thru 3 December 1982

**7. Period for which permit is valid or project is scheduled:**

14 August 1981 to 14 August 1986

**8. Expected frequency of dumping: 20 times daily, 5 days a week**

9. Chemical composition of the dredged material as reported in elutriate test concentrations or "bulk" or "total" analyses as appropriate:

a. Elutriate test results:

(1) Nutrients: (Units are in ppm)

Ammonia Nitrogen	1.44
Total Kjeldahl Nitrogen	7.95
Phosphorous	0.463

(2) Metals: (Units are in ppb)

Hg	< 0.3	Ni	16.3
As	21.0	Cr	1.3
Cu	1.5	Fe++	<10.0
Zn	175.0		
Cd	1.5		
Pb	3.7		

b. Other analyses: (Bulk)

(1) Metals: (Units are mg/kg)

Hg	11	Ni	< 0.5
As	1.1	Cr	18.1
Cu	2.9	Fe++	< 0.3
Zn	29.5		
Cd	< 0.1		
Pb	< 0.5		

(2) Other:

Volatile Solids	0.43%
Total Phosphate	15.5 mg/KgP
TKN	2242.2 mg/KgN
Ammonia Nitrogen	91.3 mg/KgN
Oil and Grease	194 mg/Kg
COD	27.27 mg/Kg X 10 <sup>3</sup>
TOC	10.21 mg/Kg X 10 <sup>3</sup>

10. Bioassay and Bioassessment Evaluations:

- a. Liquid Phase Bioassay: Not required.
- b. Suspend Particulate Phase: Not required.
- c. Solid Phase Bioassay: Not required.

11. Properties of the dredged material:

- a. Solubility (% Water): Not available.
- b. Density (gm/cc): 2.6
- c. pH: 8.0

12. Method of release: Bottom Dump

Time to release: 13 Minutes

13. Procedure and site for subsequent barge and hopper washing:

Dredge hopper is flushed at authorized disposal site.

14. Approved dumping site:

- a. Geographical position (latitude and longitude): 30°08'N, 85°45.5'W
- b. Depth of water (meters): 13
- c. Distance (kilometers) from nearest coast: 1.5

15. Additional information - relevant factors listed in Annex III of the Convention, e.g. toxicity, other biological properties:

Eh (m volts) 250

Pesticides analyses for one sample are as follows:

<u>PESTICIDE</u>	<u>CONCENTRATION UG/KG</u>	<u>MINIMUM DETECTABLE LEVEL</u>
Aldrin	N.D.	0.162
Chlordane	N.D.	1.455
DDD (TDE)	N.D.	0.597
Dieldrin	< 0.332*	.332
DDE	< 0.417*	.417
DDT	< 0.623	.623
Endrin	N.D.	0.316
Heptachlor	N.D.	0.081
Heptachlor Epoxide	N.D.	0.137
Lindane	N.D.	0.0834
Methoxychlor	N.D.	1.939
Mirex	N.D.	0.540
Toxaphen	N.D.	11.634
Diazinon	N.D.	0.241
Guthion	N.D.	7.029
Malthion	N.D.	3.490
Methyl Parathion	N.D.	4.135
Parathion	N.D.	4.120
PCB (AR 1242)	N.D.	2.036
PCB (AR 1254)	< 3.448*	3.448
PCB (AR 1260)	N.D.	6.817

Notes: Results are expressed on a dry weight basis.

N.D. = Nondetectable.

\* = Immeasurable quantity - less than the minimum detectable level.

SAMOP-0

March 1983

US ARMY ENGINEER DISTRICT, MOBILE  
IMCO Report on Ocean Dumping - CY82

1. Issuing Authority:

Division: South Atlantic

District: Mobile

2. Date Issued:3. Country of origin of dredged material or other matter:

United States of America.

Port of Loading (activity location): Pascagoula Harbor, Mississippi4. General description of dredged material, dredging, and transportation made:a. Description: Silty-clay with low liquid limits (ML-CL)b. Mode of Dredging: Hopper Dredge MERMONTAUc. Mode of Transportation: Hopper Dredge5. Form in which dredged material is presented for disposal:

Slurry, Noncohesive Character

6. Material quantity (volume in metric units, cubic meters) of material dumped in the ocean and dates of actual disposal during reporting calendar year:

466,789 cubic meters

22 September thru 12 November 1982

7. Period for which permit is valid or project is scheduled: EPA Interim Agreement.8. Expected frequency of dumping: 17 times daily, 5 days a week.

3-1 pg. 2-14

9. Chemical composition of the dredged material as reported in elutriate test concentrations or "bulk" or "total" analyses as appropriate:

a. Elutriate test results:

(1) Nutrients: (Units are in ppm)

Ammonia Nitrogen	5.08
Total Kjeldahl Nitrogen	12.88
Phosphorous	0.500

(2) Metals: (Units are in ppb)

Hg	0.2	Ni	2.6
As	24.0	Cr	0.5
Cu	1.1	Fe++	33.0
Zn	28.9		
Cd	0.2		
Pb	1.4		

b. Other analyses: (Bulk)

(1) Metals: (Units are mg/kg)

Hg	0.26	Ni	12.57
As	0.9	Cr	295.2
Cu	1.8	Fe++	0.3
Zn	51.53		
Cd	0.32		
Pb	14.37		

(2) Other:

Volatile Solids	4.71%
Total Phosphate	28.25 mg/KgP
TKN	546.9 mg/KgN
Ammonia Nitrogen	54.5 mg/KgN
Oil and Grease	250 mg/Kg
COD	17.40 mg/Kg X 10 <sup>3</sup>
TOC	6.51 mg/Kg X 10 <sup>3</sup>

10. Bioassay and Bioassessment Evaluations:

- a. Liquid Phase Bioassy: Not required.
- b. Suspend Particulate Phase: Not required.
- c. Solid Phase Bioassay: Not required.

11. Properties of the dredged material:

- a. Solubility (% Water): Not Available.
- b. Density (gm/cc): 1.983
- c. pH: 7.5

12. Method of release: Bottom Dump

Time to release: 13 Minutes

13. Procedure and site for subsequent barge and hopper washing:

Dredge hopper is flushed at authorized disposal site.

14. Approved dumping site:

- a. Geographical position (latitude and longitude): 30°11'N, 88°33'W
- b. Depth of water (meters): 12
- c. Distance (kilometers) from nearest coast: 16.6

15. Additional information - relevant factors listed in Annex III of the Convention, e.g. toxicity, other biological properties:

Eh (m volts) 502

Pesticides analyses for one sample are as follows:

<u>PESTICIDE</u>	<u>CONCENTRATION UG/KG</u>	<u>MINIMUM DETECTABLE LEVEL</u>
Aldrin	N.D.	0.170
Chlordane	N.D.	1.526
Dieldrin	0.966	0.233
DDD (TDE)	N.D.	0.627
DDE	N.D.	0.605
DDT	N.D.	0.792
Endrin	N.D.	0.332
Heptachlor	N.D.	0.085
Heptachlor Epoxide	N.D.	0.144
Lindane	N.D.	0.088
Methoxychlor	N.D.	2.034
Mirex	N.D.	0.567
Toxaphen	N.D.	12.201
Diazinon	N.D..	0.253
Guthion	N.D.	7.372
Malthion	N.D.	3.660
Methyl Parathion	N.D.	4.337
Parathion	N.D.	4.321
PCB (AR 1242)	N.D.	2.135
PCB (AR 1242)	12.097	4.762
PCB (AR 1260)	N.D.	7.149

Notes: Results are expressed on a dry weight basis.

N.D. = Nondetectable.

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IMCO Report on Ocean Dumping - CY 82

1. Issuing authority:

Division Lower Miss. Valley District New Orleans

2. Date issued: 8 Jan 82

3. Country of origin of dredged material or other matter:

United States of America, New Orleans, La.

Port of Loading (activity location): Mississippi River, Southwest Pass

4. General description of dredged material, dredging, and transportation mode:

a. Description: Medium to fine grain sand, silt and clay.

b. Mode of dredging: Hopper dredge

c. Mode of transportation: Hopper dredge

5. Form in which dredged material is presented for disposal:  
Noncohesive slurry

6. Material quantity (volume in metric units, cubic meters) of material dumped in the ocean and dates of actual disposal during reporting calendar year: 3,966,035 M<sup>3</sup> 17 Feb to 15 Jul 82

7. Period for which permit is valid or project is scheduled:

1 year

8. Expected frequency of dumping:

12 dumps per day, 7 days per week

9. Chemical composition of the liquid phase of dredged material as described in the Federal Register of 11 Jan 77 which contains the Environmental Protection Agency's final regulations and criteria:

a. Liquid phase test results:

(1) Nutrients: Nitrogen (KJD) 2.5 mg/l  
                  Nitrogen (NH<sub>4</sub> dissolved) 2.2 mg/l

(2) Metals: As 3.0 ug/l  
                  Cr 12.0 ug/l  
                  Mn 2,200 ug/l  
                  Hg 0.1ug/l  
                  Ni 3.0 ug/l  
                  Zn 20.0 ug/l

(3) Organics: Phenols 14.0 ug/l  
Disszinon 0.02 ug/l  
2,4-D 0.01 ug/l

b. Other analyses: (Sediments)

(1) Metals: As 9.0 ug/g  
Cr 10.0 ug/g  
Cu 14.0 ug/g  
Pb 20.0 ug/g  
Mn 500.0 ug/g  
Hg 0.05 ug/g  
Ni 15.0 ug/g  
Zn 45.0 ug/g

(2) Organics: Phenols 5.0 ug/l  
Phosphorus 0.28 mg/l  
Carbon (organic) mg/l

(3) Other: COD 32,000 mg/kg  
Oil and Grease, none

10. Bioassay and Bioassessment Evaluations:

- a. Liquid Phase Bioassay: no effect
- b. Suspend Particulate Phase Bioassay: no effect
- c. Solid Phase Bioassay: no effect

11. Properties of the dredged material:

- a. Solubility (% water): 80 % H<sub>2</sub>O
- b. Density (gm/cc): 1.651
- c. pH: not measured

12. Method of release: bottom dump

13. Procedure and site for subsequent barge and hopper washing:  
hopper flushed with seawater twice daily at the disposal site.

14. Approved dumping site:

- a. Geographical position (latitude and longitude):  
28° 53' 15" N, 89° 26' 30" W

- 
- b. Depth of water (meters): 12M

- c. Distance (kilometers) from nearest coast: 7.5

15. Additional information: none

IMCO Report on Ocean Dumping - CY82

1. Issuing authority:

Division Lower Miss. Valley District New Orleans

2. Date issued: 31 May 82

3. Country of origin of dredged material or other matter:

United States of America, New Orleans, La.

Port of Loading (activity location): Mississippi River-Gulf Outlet

4. General description of dredged material, dredging, and transportation made:

a. Description: Medium to fine grain sand and silt.

b. Mode of dredging: Hopper dredge

c. Mode of transportation: Hopper dredge

5. Form in which dredged material is presented for disposal:

Noncohesive slurry

6. Material quantity (volume in metric units, cubic meters) of material dumped in the ocean and dates of actual disposal during reporting calendar year: 252,558      15July through 2 August

7. Period for which permit is valid or project is scheduled:

6 months

8. Expected frequency of dumping:

10 dumps per day, 7 days per week

9. Chemical composition of the liquid phase of dredged material as described in the Federal Register of 11 Jan 77 which contains the Environmental Protection Agency's final regulations and criteria:

a. Liquid phase test results:

(1) Nutrients: KJD 3.8 mg/l  
NH<sub>4</sub> 3.7 mg/l  
COD 630 mg/l

(2) Metals: As 3.0 ug/l  
Cd 1.0 ug/l  
Mg 0.1 ug/l  
Zn 20.0 ug/l  
Mn 690 ug/l

(3) Organics: Diazinon 0.17 ug/l  
2,4-D 0.02 ug/l

b. Other analyses: (sediments)

(1) Metals: As 6.0 ug/g  
Cr 9.0 ug/g  
Cu 14.0 ug/g  
Pb 20.0 ug/g  
Mn 570 ug/g  
Hg 0.03 ug/g  
Ni 16.0 ug/g  
Zn 40.0 ug/g

(2) Organics: KJD 4810 mg/kg  
Oil and Grease 0.0  
Chlorodane 10.0 mg/kg  
PCB 3.0 mg/kg

(3) Other: None

10. Bioassay and Bioassessment Evaluations:

- a. Liquid Phase Bioassay: No effect
- b. Suspend Particulate Phase Bioassay: No effect
- c. Solid Phase Bioassay: No effect

11. Properties of the dredged material:

- a. Solubility (% water): 80%
- b. Density (gm/cc): 1.543 gm/cc
- c. pH: not measured

12. Method of release: bottom dump

13. Procedure and site for subsequent barge and hopper washing:  
Wash with seawater at dump site once each day.

14. Approved dumping site:

a. Geographical position (latitude and longitude):

29° 24' 55" N , 88° 59' 30" W

b. Depth of water (meters): 12 M

c. Distance (kilometers) from nearest coast: 27 km

15. Additional information: none

IMCO Report on Ocean Dumping - CY 82

1. Issuing authority:

Division Lower Miss. Valley District New Orleans

2. Date issued: 7 Jan 81

3. Country of origin of dredged material or other matter:

United States of America, New Orleans, La.

Port of Loading (activity location): Calcasieu River bar channel

4. General description of dredged material, dredging, and transportation made:

a. Description: Fine grain sand, silt and organic material

b. Mode of dredging: hopper dredge

c. Mode of transportation: hopper dredge

5. Form in which dredged material is presented for disposal:  
noncohesive slurry

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6. Material quantity (volume in metric units, cubic meters) of material dumped in the ocean and dates of actual disposal during reporting calendar year:

1,589,718 M<sup>3</sup>    1 Oct to 31 Oct 82

7. Period for which permit is valid or project is scheduled:

6 months

8. Expected frequency of dumping:

continuous agitation and/or 10 dumps per day, 7 days per week

9. Chemical composition of the liquid phase of dredged material as described in the Federal Register of 11 Jan 77 which contains the Environmental Protection Agency's final regulations and criteria:

- a. Liquid phase test results:

(1) Nutrients: Nitrogen (KJD) 1.8 mg/l  
                            Nitrogen (dissolved NH<sub>4</sub>) 1.3 mg/l

(2) Metals: As 5.0 ug/l  
                            Cd 1.0 ug/l  
                            Cr 2.0 ug/l  
                            Mn 540 ug/l  
                            Hg 0.1 ug/l

(3) Organics: Diazinon 0.04 ug/l  
2, 4-D 0.9 ug/l

b. Other analyses: (Sediments)

(1) Metals: Cr 4.0 ug/g  
Cu 3.0 ug/g  
Mn 190 ug/g  
Hg 0.01 ug/g  
Zn 10 ug/g  
Cd 0.02 ug/g

(2) Organics: Phenol 2.0 ug/l  
DDD 0.2 ug/l  
DDE 0.2 ug/l  
PCB 3.0 ug/l

(3) Other: Carbon (total organic) 2.5 mg/l  
COD 14,000 mg/kg  
Nitrogen (KJD) 2,600 mg/kg  
Phosphros (Tot. PO<sub>4</sub>) 0.09 mg/l

10. Bioassay and Bioassessment Evaluations:

Criteria waived.

a. Liquid Phase Bioassay:

b. Suspend Particulate Phase Bioassay:

c. Solid Phase Bioassay:

11. Properties of the dredged material:

a. Solubility (% water): 80 %

b. Density (gm/cc): 1.4

c. pH: not measured

12. Method of release: bottom dump for dredge and haul; continuous overflow of hoppers during agitation.

13. Procedure and site for subsequent barge and hopper washing:  
Hopper flushed twice daily with seawater at disposal site.

14. Approved dumping site:

a. Geographical position (latitude and longitude):

29° 42' 06" N , 93° 20' 39" W

b. Depth of water (meters): 8M

c. Distance (kilometers) from nearest coast: 5 km

15. Additional information: none

IMCO Report on Ocean Dumping - CY1982

1. Issuing authority:

Division Southwestern

District Galveston

2. Date issued: April 1982

3. Country of origin of dredged material or other matter:

USA, STATE OF TEXAS

Port of Loading (activity location): Sabine-Neches Waterway, Texas

4. General description of dredged material, dredging, and transportation made:

a. Description:

Silt, sand and clay

b. Mode of dredging: Hopper Dredge "PADRE ISLAND"

c. Mode of transportation: Hopper Dredge

5. Form in which dredged material is presented for disposal:

Slurry - silt and clay in suspension

6. Material quantity (volume in metric units, cubic meters) of material dumped in the ocean and dates of actual disposal during reporting calendar year:

APR-MAY 82      1,294,602 m<sup>3</sup>

7. Period for which permit is valid or project is scheduled:

60 days

8. Expected frequency of dumping:

10 daily    7 days/week

9. Chemical composition of the liquid phase of dredged material as described in the 11 Jan 77 Federal Register which contains the Environmental Protection Agency's final regulations and criteria:

- a. Liquid Phase test results: No statistical significance

(1) Nutrients:

(2) Metals:

(3) Organics:

b. Other analyses:

(1) Metals:

(2) Organics:

(3) Other:

10. Bioassay and Bioassessment Evaluations:

- a. Liquid Phase Bioassay: No effect
- b. Suspended Particulate Phase Bioassay: No effect
- c. Solid Phase Bioassay: No effect

11. Properties of the dredged material:

- a. Solubility (% Water): 80
- b. Density (gm/cc): 1.4
- c. pH: N/A

12. Method of release: Bottom release

Time to release: Immediate

13. Procedure and site for subsequent barge and hopper washing:

Hoppers flushed at authorized disposal sites

14. Approved dumping site:

a. Geographical position (latitude and longitude):

Area No. 4      29°36'. 93°49' (center coordinates)

b. Depth of water (meters):      7

c. Distance (kilometers) from nearest coast:      5

15. Additional information:

## IMCO Report on Ocean Dumping - CY 1982

1. Issuing authority:Division Southwestern District Galveston2. Date issued: June 19823. Country of origin of dredged material or other matter:USA, STATE OF TEXASPort of Loading (activity location): Freeport Harbor, TX4. General description of dredged material, dredging, and transportation made:a. Description:Silt, sand and clayb. Mode of dredging: Hopper Dredge "STUYVESANT"c. Mode of transportation: Hopper Dredge5. Form in which dredged material is presented for disposal:Slurry - silt and clay in suspension

6. Material quantity (volume in metric units, cubic meters) of material dumped in the ocean and dates of actual disposal during reporting calendar year:

JUN - AUG 82      1,061,382 m<sup>3</sup>

7. Period for which permit is valid or project is scheduled:

90 days

8. Expected frequency of dumping:

13 daily 7/days/week

9. Chemical composition of the liquid phase of dredged material as described in the 11 Jan 77 Federal Register which contains the Environmental Protection Agency's final regulations and criteria:

- a. Liquid Phase test results: No statistical significance

(1) Nutrients:

(2) Metals:

(3) Organics:

b. Other analyses:

(1) Metals:

(2) Organics:

(3) Other:10. Bioassay and Bioassessment Evaluations:

- a. Liquid Phase Bioassay: No effect
- b. Suspended Particulate Phase Bioassay: No effect
- c. Solid Phase Bioassay: No effect

11. Properties of the dredged material:

- a. Solubility (% Water): 80
- b. Density (gm/cc): 1.8
- c. pH: N/A

12. Method of release: Bottom release

Time to release: Immediate

13. Procedure and site for subsequent barge and hopper washing:

Hoppers flushed at authorized disposal site

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14. Approved dumping site:

- a. Geographical position (latitude and longitude):

Area No. 1  $28^{\circ}54'$ ,  $95^{\circ}17'$  (center coordinates)

- b. Depth of water (meters): 10

- c. Distance (kilometers) from nearest coast: 3.2

15. Additional information:

## IMCO Report on Ocean Dumping - CY 1982

1. Issuing authority:Division SouthwesternDistrict Galveston2. Date issued: August 19823. Country of origin of dredged material or other matter:USA, STATE OF TEXASPort of Loading (activity location): Corpus Christi Channel, Texas4. General description of dredged material, dredging, and transportation made:a. Description:

Sand, silt

b. Mode of dredging: Hopper Dredge "SIUVESANT"c. Mode of transportation: Hopper Dredge5. Form in which dredged material is presented for disposal:

Sand with suspended silt

6. Material quantity (volume in metric units, cubic meters) of material dumped in the ocean and dates of actual disposal during reporting calendar year:

Aug-Oct 82 1,337,027 m<sup>3</sup>

7. Period for which permit is valid or project is scheduled:

90 days

8. Expected frequency of dumping:

7 daily 7/days/week

9. Chemical composition of the liquid phase of dredged material as described in the 11 Jan 77 Federal Register which contains the Environmental Protection Agency's final regulations and criteria:

- a. Liquid Phase test results: No statistical significance

(1) Nutrients:

(2) Metals:

(3) Organics:

b. Other analyses:

(1) Metals:

(2) Organics:

(3) Other:

10. Bioassay and Bioassessment Evaluations:

- a. Liquid Phase Bioassay: No effect
- b. Suspended Particulate Phase Bioassay: No effect
- c. Solid Phase Bioassay: No effect

11. Properties of the dredged material:

- a. Solubility (% Water): 80
- b. Density (gm/cc): 2.0
- c. pH: N/A

12. Method of release: Bottom release

Time to release: Immediate

13. Procedure and site for subsequent barge and hopper washing:

Hoppers flushed at authorized disposal site

14. Approved dumping site:

a. Geographical position (latitude and longitude):

27°49', 97°00' (CENTSR COOR)

b. Depth of water (meters): 12

c. Distance (kilometers) from nearest coast: 1.8

15. Additional information:

## IMCO REPORT ON OCEAN DUMPING

CY 19821. Issuing authority:Division South Pacific District San Francisco2. Date issued: 12 July 19823. Country of origin of dredged material or other matter:United States of America, CaliforniaPort of Loading (activity location): Crescent City Harbor

4. General description of dredged material, dredging, and transportation made:

a. Description:Silts, loose sands, gravel, shell fragments and sandstone.b. Mode of dredging: Clamshellc. Mode of transportation: Tug with Dump Barge5. Form in which dredged material is presented for disposal:Settled Sands, silts, and rock fragments.

6. Material quantity (volume in metric units, cubic meters) of material dumped in the ocean and dates of actual disposal during reporting calendar year:

81,827 cubic meters

6 August - 12 October 1982

7. Period for which permit is valid or project is scheduled:

90 days

8. Expected frequency of dumping:

2 loads per day

9. Chemical composition of the liquid phase of dredged material as described in the 11 Jan 77 Federal Register which contains the Environmental Protection Agency's final regulations and criteria:

a. Liquid Phase test results

(1) Nutrients: not tested

(2) Metals: Tested for Hg, Cd, Cu, Zn, and Pb. Did not exceed levels in receiving waters nor did these levels exceed State Water

(3) Organics: Quality Control Board criteria.

Tested for "Persistent Organochalogen" and pesticides other than b. Other analysis: Persistent Organohalogen. Results below state criteria however total exceeded receiving water test by an average of 0.06 micrograms/citer

(1) Metals: None

(2) Organics: None

(3) Other: None

10. Bioassay and Bioassessment Evaluations:

a. Liquid Phase Bioassay:

There were no significant differences in survival between the control treatment and the 100 percent dredge material treatment for any species tested

b. Suspend Particulate Phase Bioassay:

Same as above

c. Solid Phase Bioassay:

Same as above

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11. Properties of the dredged material:

- a. Solubility (% Water): \_\_\_\_\_ Unknown
- b. Density (gm/cc): \_\_\_\_\_ Varies widely (silt to rock)
- c. pH: \_\_\_\_\_ not tested

12. Method of Release:

Bottom dump

Time to release:

15 min. to 120 min. long release times were due to rocks hanging in hopper doors.

13. Procedure and site for subsequent barge and hopper washing:

Hoppers flushed at authorized disposal site.

14. Approved dumping site:

- a. Geographical position (latitude and longitude):

41° 43' 15" N, 124° 12' 10" W

- b. Depth of water (meters): \_\_\_\_\_ 27

- c. Distance (kilometers) from nearest coast: \_\_\_\_\_ 2.09

15. Additional information:

None

## IMCO REPORT ON OCEAN DUMPING

CY 19821. Issuing authority:Division South Pacific District San Francisco2. Date issued: 12 January 19823. Country of origin of dredged material or other matter:United States of America, CaliforniaPort of Loading (activity location): San Francisco Harbor, Main Ship Channel

## 4. General description of dredged material, dredging, and transportation made:

a. Description:

Fine sand with trace of silt.

Sand 95%

Silt 05%

b. Mode of dredging: Trailing Hopper Dredgec. Mode of transportation: Hopper Dredge5. Form in which dredged material is presented for disposal:

Settled Sand

6. Material quantity (volume in metric units, cubic meters) of material dumped in the ocean and dates of actual disposal during reporting calendar year:

700,200 cubic meters

12 January - 10 March 1982

7. Period for which permit is valid or project is scheduled:

60 days

8. Expected frequency of dumping:

10 loads per day

9. Chemical composition of the liquid phase of dredged material as described in the 11 Jan 77 Federal Register which contains the Environmental Protection Agency's final regulations and criteria:

a. Liquid Phase test results

(1) Nutrients: Not tested, meets criteria of Section 227.13 (6)(1), Ocean Dumping Rules and Regulations F.R. Vol. 42, No. 7, 11 Jan 77.

(2) Metals:

Same as above

(3) Organics:

Same as above

b. Other analysis:

(1) Metals:

Same as above

(2) Organics:

Same as above

(3) Other:

Same as above

10. Bioassay and Bioassessment Evaluations:

a. Liquid Phase Bioassay:

Not tested, meets criteria of Section 227.13 (b)(1) Ocean Dumping Rules and Regulations, F.R. Vol. 42, No. 7, 11 Jan 77.

b. Suspend Particulate Phase Bioassay:

Same as above

c. Solid Phase Bioassay:

Same as above

11. Properties of the dredged material:

- a. Solubility (% Water): 57%
- b. Density (gm/cc): 1.752
- c. pH: not tested

12. Method of Release:

Bottom dump

Time to release:

18 minutes

13. Procedure and site for subsequent barge and hopper washing:

Hoppers flushed at authorized disposal site.

14. Approved dumping site:

a. Geographical position (latitude and longitude):

37° 45' 06" N      122° 35' 45" W

b. Depth of water (meters): 12.2

c. Distance (kilometers) from nearest coast: 5.2

15. Additional information:

## IMCO REPORT ON OCEAN DUMPING

CY 19821. Issuing authority:Division South Pacific District San Francisco2. Date issued: 19 April 19823. Country of origin of dredged material or other matter:United States of America, CaliforniaPort of Loading (activity location): Humboldt Harbor, Fields Landing Channel

## 4. General description of dredged material, dredging, and transportation made:

a. Description:

Fine sand and gravel

86% Sand

7% Gravel

7% Silt

b. Mode of dredging: Trailing Hopper Dredgec. Mode of transportation: Hopper Dredge5. Form in which dredged material is presented for disposal:

Settled sand

6. Material quantity (volume in metric units, cubic meters) of material dumped in the ocean and dates of actual disposal during reporting calendar year:

75,000 cubic meters

20 April - 7 May 1982

7. Period for which permit is valid or project is scheduled:

21 days

8. Expected frequency of dumping:

14 loads

9. Chemical composition of the liquid phase of dredged material as described in the 11 Jan 77 Federal Register which contains the Environmental Protection Agency's final regulations and criteria:

a. Liquid Phase test results

- (1) Nutrients: Not tested, meets criteria of Section 227.13 (b) (1) ocean dumping rules and regulations - F.R., Vol 24, No. 7, 11 Jan 77.  
(2) Metals:  
    Same as above  
(3) Organics:  
    Same as above

b. Other analysis:

- (1) Metals:  
    Same as above  
(2) Organics:  
    Same as above  
(3) Other:  
    Same as above

10. Bioassay and Bioassessment Evaluations:

a. Liquid Phase Bioassay:

Not tested, meets criteria of Section 227.13 (b) (1) ocean dumping rules and regulations - F.R. Vol 24, No. 7, 11 Jan 77.

b. Suspend Particulate Phase Bioassay:

Same as above

c. Solid Phase Bioassay:

Same as above

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11. Properties of the dredged material:

- a. Solubility (% Water): 64%
- b. Density (gm/cc): 1.619
- c. pH: not tested

12. Method of Release:

Bottom dump

Time to release:

4 minutes

13. Procedure and site for subsequent barge and hopper washing:

Hoppers flushed at authorized disposal site.

14. Approved dumping site:

a. Geographical position (latitude and longitude):

40° 45' 44" N                    124° 15' 42"W

b. Depth of water (meters): 26

c. Distance (kilometers) from nearest coast: 2.6

15. Additional information:

None

## IMCO REPORT ON OCEAN DUMPING

CY 19821. Issuing authority:Division South Pacific District San Francisco2. Date issued: 11 June 19823. Country of origin of dredged material or other matter:United States of America, CaliforniaPort of Loading (activity location): Humboldt Harbor, Bar & Entrance Channel

## 4. General description of dredged material, dredging, and transportation made:

a. Description:

Fine sand with a trace of silt.  
98% sand  
2% silt

b. Mode of dredging: Trailing Hopper Dredgec. Mode of transportation: Hopper Dredge5. Form in which dredged material is presented for disposal:

Settled sand

6. Material quantity (volume in metric units, cubic meters) of material dumped in the ocean and dates of actual disposal during reporting calendar year:

168,125 cubic meters

12 June - 3 July 1982

7. Period for which permit is valid or project is scheduled:

60 days 11 June - 12 August 1982

8. Expected frequency of dumping:

21 loads/day

9. Chemical composition of the liquid phase of dredged material as described in the 11 Jan 77 Federal Register which contains the Environmental Protection Agency's final regulations and criteria:

a. Liquid Phase test results

- (1) Nutrients: Not tested, meets criteria of Section 227.13 (b) (1), Ocean Dumping Rules and Regulations, F.R., Vol 42, No. 7, 11 Jan 77.  
(2) Metals:  
Same as above  
(3) Organics:  
Same as above

b. Other analysis:

- (1) Metals: Same as above  
(2) Organics:  
(3) Other: Same as above  
Same as above

10. Bioassay and Bioassessment Evaluations:

- a. Liquid Phase Bioassay: Not tested, meets criteria of Section 227.13 (b) (1)  
Ocean Dumping Rules and Regulations, F.R. Vol 42, No. 7, 11 Jan 77.

b. Suspend Particulate Phase Bioassay:

Same as above

c. Solid Phase Bioassay:

Same as above

11. Properties of the dredged material:

- a. Solubility (% Water): 45%
- b. Density (gm/cc): 1.938
- c. pH: not tested

12. Method of Release:

Bottom Dump

Time to release:

6 minutes

13. Procedure and site for subsequent barge and hopper washing:

Hoppers flushed at authorized disposal site.

14. Approved dumping site:

a. Geographical position (latitude and longitude):

40° 45' 44" N      124° 15' 42" W

b. Depth of water (meters): 26

c. Distance (kilometers) from nearest coast: 2.6

15. Additional information: None

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IMCO Report on Ocean Dumping - CY 82

1. Issuing authority:

Division North Pacific District Portland

2. Date issued: 26 January 1979

3. Country of origin of dredged material or other matter:

United States of America, Oregon

Port of Loading (activity location): Chetco River, Oregon

4. General description of dredged material, dredging, and transportation made:

a. Description: Sand & Gravel (GW) - Inside Channel

Sand (SP) - Entrance

b. Mode of dredging: Hopper Dredges YAQUINA and SANDSUCKER

c. Mode of transportation: Hopper Dredge

5. Form in which dredged material is presented for disposal:

Sand & Gravel - Subangular to subrounded

6. Material quantity (volume in metric units, cubic meters) of material dumped in the ocean and dates of actual disposal during reporting calendar year:

49,288 cu. meters

8 - 11 Apr 82

3 - 15 Jun 82

10 - 12 Aug 82

7. Period for which permit is valid or project is scheduled:

Apr - Sep 1982, 1983

8. Expected frequency of dumping:

8 loads daily, 5 days per week

9. Chemical composition of the liquid phase of dredged material as described in the 11 Jan 77 Federal Register which contains the Environmental Protection Agency's final regulations and criteria:

- a. Liquid phase test results:

(1) Nutrients: Meets chemical - biological testing exemption criteria.

(2) Metals: Hg - .0001 mg/l  
Pb - .001 mg/l  
Cd - .001 mg/l  
Zn - .02 mg/l

(3) Organics: None

b. Other analyses:

(1) Metals:

Hg - .0001 mg/l  
Pb - .01 mg/l  
Cd - .003 mg/l  
Zn - .04 mg/l

(2) Organics: None

(3) Other: Volatile Solids % - 4.2  
C.O.D. - 15,446 mg/l  
D.O. - 6.0 mg/l

C-45 pg. 4 of 5

10. Bioassay and Bioassessment Evaluations:

- a. Liquid phase bioassay: No effect
- b. Suspend particulate phase bioassay: No effect
- c. Solid phase bioassay: No effect

11. Properties of the dredged material:

- a. Solubility (% Water): 36% H<sub>2</sub>O
- b. Density (gm/cc): 2.06 gm/cc
- c. pH: 7.6

12. Method of release: Bottom release - Immediate

13. Procedure and site for subsequent barge and hopper washing:

Hoppers flushed at authorized disposal site.

14. Approved dumping site:

a. Geographical position (latitude and longitude):

42°-02' N (Lat.); 124°-16' W (Long.)

b. Depth of water (meters): 21.3 meters

c. Distance (kilometers) from nearest coast: 1.6 kilometers

15. Additional information -

IMCO Report on Ocean Dumping - CY 821. Issuing authority:Division North Pacific District Portland2. Date issued: 26 January 19793. Country of origin of dredged material or other matter:United States of America, OregonPort of Loading (activity location): Coquille River, Oregon4. General description of dredged material, dredging, and transportation made:a. Description: Sand (SP)b. Mode of dredging: Hopper Dredges YACQUINA and SANDSLICKERc. Mode of transportation: Hopper Dredge5. Form in which dredged material is presented for disposal:

Sand - Subrounded to subangular

6. Material quantity (volume in metric units, cubic meters) of material dumped in the ocean and dates of actual disposal during reporting calendar year:

76,993 cu. meters  
16-26 Jun 82  
13-16, 25-26 Jul 82  
1-3 Sep 82

7. Period for which permit is valid or project is scheduled:

Apr-Sep 1982, 1983

8.

12 loads per day, 5 days per week

9. Chemical composition of the liquid phase of dredged material as described in the 11 Jan 77 Federal Register which contains the Environmental Protection Agency's final regulations and criteria:

a. Liquid phase test results:

(1) Nutrients: Meets chemical-biological testing criteria.

(2) Metals:

Hg- .001 mg/l  
Pb- .01 mg/l  
Cd .001 "  
Zn- .07 mg/l  
Cu-0.05 mg/l

(3) Organics: None

b. Other analyses:

(1) Metals:

Hg-	.075	mg/kg	dry
Pb-	13.3	"	"
Cd-	1.7	"	"
Cu-	235.5	"	"
Zn	139.2	"	"

(2) Organics: None

(3) Other:

Total Solids	-	81.69%
Volatile Solids	-	0.59%
C.O.D.	-	4088.4 mg/kg
Oil & grease	-	No visible sheen

10. Bioassay and Biassessment Evaluations:

- a. Liquid phase bioassay: \_\_\_\_\_ No effect
- b. Suspend particulate phase bioassay: \_\_\_\_\_ No effect
- c. Solid phase bioassay: \_\_\_\_\_ No effect

11. Properties of the dredged material:

- a. Solubility (% Water): \_\_\_\_\_ 37% H<sub>2</sub>O
- b. Density (gm/cc): \_\_\_\_\_ 2.06 gm/cc
- c. pH: \_\_\_\_\_ 7.0

12. Method of release: Bottom release - Immediate13. Procedure and site for subsequent barge and hopper washing:

Hoppers flushed at authorized disposal site.

14. Approved dumping site:a. Geographical position (latitude and longitude):43°-07' N (Lat.); 124°-26' W (Long.)b. Depth of water (meters): 18.3 metersc. Distance (kilometers) from nearest coast: 1.3 kilometers15. Additional information -

IMCO Report on Ocean Dumping - CY 821. Issuing authority:Division North Pacific District Portland2. Date issued: 8 Mar 793. Country of origin of dredged material or other matter:United States of America, OregonPort of Loading (activity location): Coos Bay, Oregon4. General description of dredged material, dredging, and transportation made:a. Description: Sand (SP)b. Mode of dredging: Hopper Dredge EAGLE Ic. Mode of transportation: Hopper Dredge5. Form in which dredged material is presented for disposal:

Sand - Subrounded to subangular

6. Material quantity (volume in metric units, cubic meters) of material dumped in the ocean and dates of actual disposal during reporting calendar year:

702,789 cubic meters  
9 May - 11 Jun 82

7. Period for which permit is valid or project is scheduled:

March - November 1982, 1983

8. Expected frequency of dumping:

11 loads per day, 7 days per week

9. Chemical composition of the liquid phase of dredged material as described in the 11 Jan 77 Federal Register which contains the Environmental Protection Agency's final regulations and criteria:

- a. Liquid phase test results:

- (1) Nutrients:

T.O.C. - 4.7 mg/ml

- (2) Metals:

Cd - 4.3 mg/ml  
Zn - 97 mg/ml  
Cu - 8.5 mg/ml  
Fe - 70 mg/ml  
Mn - 90 mg/ml

(3) Organics:

Volatile Solids ~ .4%

b. Other analyses:

(1) Metals:

Pb - 7 mg/g  
Cd - 1.0 mg/g  
Zn - 49 mg/g  
Cu - 1.1 mg/g  
Fe - 2.5 mg/g  
Mn - 45

(2) Organics:

NH<sub>4</sub> - 1.5/mg/g

(3) Other:

Volatile Solids - 4,230 mg/l  
Suspended Solids - 57 mg/l  
Oil and Grease - No visible sheen  
D.O. - 8.2 mg/l

10. Bioassay and Biodegradation Evaluations:

- a. Liquid phase bioassay: No effect
- b. Suspend particulate phase bioassay: No effect
- c. Solid phase bioassay: No effect

11. Properties of the dredged material:

- a. Solubility (% Water): 37% H<sub>2</sub>O
- b. Density (gm/cc): 1.94 gm/cc
- c. pH: 7.1

12. Method of release: Bottom release - Immediate.13. Procedure and site for subsequent barge and hopper washing:

Hoppers flushed at authorized disposal sites.

14. Approved dumping site:a. Geographical position (latitude and longitude):43°-21' N. (Lat.); 124°-22' W. (Long.)b. Depth of water (meters): 24.4 Metersc. Distance (kilometers) from nearest coast: 2.8 Kilometers15. Additional information -

IMCO Report on Ocean Dumping - CY 821. Issuing authority:Division North Pacific District Portland2. Date issued: 25 January 19793. Country or origin of dredged material or other matter:United States of America, OregonPort of Loading (activity location): Mouth of Columbia River4. General description of dredged material, dredging, and transportation made:a. Description: Sand (SP)b. Mode of dredging: Hopper Dredge BIDDLEc. Mode of transportation: Hopper Dredge5. Form in which dredged material is presented for disposal:

Sand - Subrounded to subangular

6. Material quantity (volume in metric units, cubic meters) of material dumped in the ocean and dates of actual disposal during reporting calendar year:

2,573,023 cubic meters  
11 May - 28 Sep 82

7. Period for which permit is valid or project is scheduled:

February - October 1982, 1983

8. Expected frequency of dumping:

13 loads daily, 7 days per week

9. Chemical composition of the liquid phase of dredged material as described in the 11 Jan 77 Federal Register which contains the Environmental Protection Agency's final regulations and criteria:

- a. Liquid phase test results:

(1) Nutrients: Meets chemical - biological testing exemption criteria.

(2) Metals: Hg - None detected  
Pb - " "  
Cd - " "  
Zn - 0.19 mg/l

(3) Organics: None

b. Other analyses:

(1) Metals: Hg - 0.038 ppm  
Pb - 6.950 mg/kg  
Cd - 0.64 mg/kg  
Zn - 9.0 mg/kg

(2) Organics: None

(3) Other: None

10. Bioassay and Biocassessmen Evaluations:

- a. Liquid phase bioassay: \_\_\_\_\_ No effect
- b. Suspend particulate phase bicassav: \_\_\_\_\_ No effect
- c. Solid phase bioassav: \_\_\_\_\_ No effect

11. Properties of the dredged material:

- a. Solubility (% Water): \_\_\_\_\_ 40% H<sub>2</sub>O
- b. Density (gm/cc): \_\_\_\_\_ 1.94 gm/cc
- c. pH: \_\_\_\_\_ 7.0

12. Method of release: Bottom release - Immediate

13. Procedure and site for subsequent barge and hopper washing:

Hoppers flushed at authorized disposal sites.

14. Approved dumping site:a. Geographical position (latitude and longitude):

This project has five authorized disposal sites. Three were used in 1982 (see #15 below).

b. Depth of water (meters): See below.c. Distance (kilometers) from nearest coast: See below.15. Additional information -

<u>Disposal Area</u>	<u>Lat. - Long.</u>	<u>Water Depth</u>	<u>Distance from Coast</u>
Area A	46°-12' N. 124°-06' W.	18.3 Meters	3.3 Kilometers
Area B	46°-14' N. 124°-10' W.	39.6 Meters	6.1 Kilometers
Area E	46°-15' N. 124°-05' W.	21.3 Meters	0.6 Kilometers

IMCO Report on Ocean Dumping - CY 821. Issuing authority:Division North Pacific District Portland2. Date issued: 26 January 19793. Country of origin of dredged material or other matter:United States of America, OregonPort of Loading (activity location): Rogue River, Oregon4. General description of dredged material, dredging, and transportation made:a. Description:

Sand (SP)

b. Mode of dredging: Hopper Dredges YAQUINA & SANDSUCKERc. Mode of transportation: Hopper Dredge5. Form in which dredged material is presented for disposal:

Sand - Subangular

6. Material quantity (volume in metric units, cubic meters) of material dumped in the ocean and dates of actual disposal during reporting calendar year:

85,950 cubic meters  
3-11 June 1982  
12-19 August 1982

7. Period for which permit is valid or project is scheduled:

Apr - Sep 1982, 1983

8. Expected frequency of dumping:

12 loads per day, 5 days per week

9. Chemical composition of the liquid phase of dredged material as described in the 11 Jan 77 Federal Register which contains the Environmental Protection Agency's final regulations and criteria:

- a. Liquid phase test results:

(1) Nutrients: None

(2) Metals:

Hg -	.0001
Pb -	<.001
Cd -	.002
Zn -	.012

(3) Organics: None

b. Other analyses:

(1) Metals: None

(2) Organics:

None

RD-R138 832

OCEAN DUMPING REPORT FOR CALENDAR YEAR 1982 DREDGED  
MATERIAL(U) CORPS OF ENGINEERS FORT BELVOIR VA WATER  
RESOURCES SUPPORT CENTER OCT 83 WRSC-83-SR-1

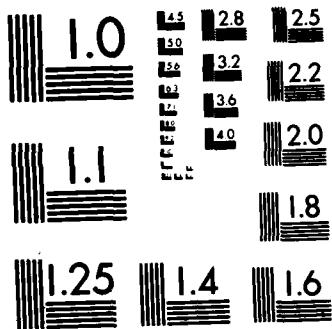
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MICROCOPY RESOLUTION TEST CHART  
NATIONAL BUREAU OF STANDARDS-1963-A

(3) Other: Oil & Grease - No visible sheen**10. Bioassay and Biodegradation Evaluations:**a. Liquid phase bioassay: No effectb. Suspend particulate phase bioassay: No effectc. Solid phase bioassay: No effect**11. Properties of the dredged material:**a. Solubility (% Water): 43% H<sub>2</sub>Ob. Density (gm/cc): 2.01 gm/ccc. pH: 7.4**12. Method of release: Bottom release - Immediate****13. Procedure and site for subsequent barge and hopper washing:**

Hoppers flushed at authorized disposal site.

14. Approved dumping site:a. Geographical position (latitude and longitude):

42°-24' N (Lat.); 124°-27' W (Long.)

b. Depth of water (meters): 18.3 meters

c. Distance (kilometers) from nearest coast: 2.2 Kilometers

15. Additional information -

IMCO Report on Ocean Dumping - CY 821. Issuing authority:Division North Pacific District Portland2. Date issued: 26 January 19793. Country of origin of dredged material or other matter:United States of America, OregonPort of Loading (activity location): Siuslaw River, Oregon4. General description of dredged material, dredging, and transportation made:a. Description: Sand (SP)b. Mode of dredging: Hopper Dredges YAQUINA & SANDSUCKERc. Mode of transportation: Hopper Dredge5. Form in which dredged material is presented for disposal:

Sand - Angular to Rounded

6. Material quantity (volume in metric units, cubic meters) of material dumped in the ocean and dates of removal/dump during reporting cycle:  
262,563 cubic meters

18-30 June 1982  
1-11, 18-31 July 1982  
1-10 August 1982

7. Period for which permit is valid or project is scheduled:

Mar - Sep 1982, 1983

8. Expected frequency of dumping:

14 loads daily, 5 days per week

9. Chemical composition of the liquid phase of dredged material as described in the 11 Jan 77 Federal Register which contains the Environmental Protection Agency's final regulations and criteria:

a. Liquid phase test results:

(1) Nutrients:

TKN - 1.54 mg/l

$\text{TPo}_4^+$  - 0.35 mg/l

(2) Metals:

Hg - .0010 ppm

(3) Organics: None

b. Other analyses:

(1) Metals: Hg - 0.001 ppm

(2) Organics:

Volatile Solids - 10,000 mg/kg

(3) Other: C.O.D. - 77.6 mg/l  
Oil & Grease - No visible sheen  
Suspended Solids - 56 mg/l  
T.O.C. - 1.6 mg/l  
 $S^2^-$  - None detected

10. Bioassay and Bioassessment Evaluations:

- a. Liquid phase bioassay: No effect
- b. Suspend particulate phase bicassav: No effect
- c. Solid phase bioassay: No effect

11. Properties of the dredged material:

- a. Solubility (% Water): 49% H<sub>2</sub>O
- b. Density (gm/cc): 2.01 gm/cc
- c. pH: 7.0

12. Method of release: Bottom release - Immediate

13. Procedure and site for subsequent barge and hopper washing:

Hoppers flushed at authorized disposal site.

14. Approved dumping site:a. Geographical position (latitude and longitude):

44°-01' N (Lat.), 124°-09' W (Long.)

b. Depth of water (meters): 21.3 metersc. Distance (kilometers) from nearest coast: 1.7 kilometers15. Additional information -

IMCO Report on Ocean Dumping - CY 821. Issuing authority:Division North Pacific District Portland2. Date issued: 26 January 19793. Country of origin of dredged material or other matter:United States of America, OregonPort of Loading (activity location): Umpqua River, Oregon4. General description of dredged material, dredging, and transportation made:a. Description:Sand (SP)b. Mode of dredging: Hopper Dredges YACOUTINA & SANDSUCKERc. Mode of transportation: Hopper Dredge5. Form in which dredged material is presented for disposal:

Sand - Subrounded to subangular

6. Material quantity (volume in metric units, cubic meters) of material dumped in the ocean and dates of actual disposal during reporting calendar year:

187,260	cubic meters
2-6, 12-18	Jul 82
25-31	Aug 82
1, 15-16	Sep 82

7. Period for which permit is valid or project is scheduled:

February-November 1982, 1983

8. Expected frequency of dumping:

15 loads per day, 5 days per week

9. Chemical composition of the liquid phase of dredged material as described in the 11 Jan 77 Federal Register which contains the Environmental Protection Agency's final regulations and criteria:

- a. Liquid phase test results: Meets chemical-biological testing exemptions

- (1) Nutrients:

Ortho Phosphates - .011-.062 mg/l

Phosphate Phosphorus - .065-.088 mg/l

- (2) Metals: Cyanide - .001-.003 mg/l

(3) Organics: Not available

b. Other analyses:

(1) Metals: Not available

(2) Organics: Volatile Solids - 8,500 to 41,300 mg/ug

(3) Other: Not available

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10. Bioassay and Bioassessment Evaluations:

- a. Liquid phase bioassay: No effect
- b. Suspend particulate phase bioassay: effect
- c. Solid phase bioassay: No effect

11. Properties of the dredged material:

- a. Solubility (% Water): 36% H<sub>2</sub>O
- b. Density (gm/cc): 2.05 gm/cc
- c. pH: 7.1

12. Method of release: Bottom release - Immediate

13. Procedure and site for subsequent barge and hopper washing:

Hoppers flushed at authorized disposal site.

14. Approved dumping site:

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a. Geographical position (latitude and longitude):

43°-40' N (Lat.); 124°-14'W (Long.)

b. Depth of water (meters): 27.4 meters

c. Distance (kilometers) from nearest coast: 1.7 kilometers

15. Additional information -

## IMCO Report on Ocean Dumping - CX 82

1. Issuing authority:Division North Pacific District Portland2. Date issued: 25 January 19793. Country of origin of dredged material or other matter:United States of America, OregonPort of Loading (activity location): Yaquina Bay, Oregon4. General description of dredged material, dredging, and transportation made:a. Description:

Sand (SP) - Entrance Bar

Sand (SP) &amp; Silty Sand (SP-SM) - Turning Basin

b. Mode of dredging: Hopper Dredges YAQUINA & SANDSUCKERc. Mode of transportation: Hopper Dredge5. Form in which dredged material is presented for disposal:

Sand - Angular to Subangular with overlaying of fine silt (Turning Basin only)

6. Material quantity (volume in metric units, cubic meters) of material dumped in the ocean and dates of actual disposal during reporting calendar year:

252,695	cubic meters
27-30	Apr 82
1-31	May 82
1-2	Jun 82
8-15	Sep 82

7. Period for which permit is valid or project is scheduled:

March-October 1982, 1983

8. Expected frequency of dumping:

10 loads daily, 5 days per week

9. Chemical composition of the liquid phase of dredged material as described in the 11 Jan 77 Federal Register which contains the Environmental Protection Agency's final regulations and criteria:

a. Liquid phase test results:

(1) Nutrients:

TKN - 0.42 mg/l

TPO<sub>4</sub><sup>+</sup> - 0.38 mg/l

Orthophosphate - 0.064 mg/l

TOC - 3.7 mg/l

(2) Metals:

Hg - 0.0 mg/l

Mc - 120 mg/l

Cu - 1 mg/l

Cd - 0.88 mg/l

Pb - 0.0 mg/l

Zn - 1.8 mg/l

(3) Organics: Phenols - 9 mg/l

b. Other analyses:

(1) Metals: Not Available

(2) Organics: Volatile Solids - 23,000 mg/kg

• (3) Other:

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C.O.D. - 172.2 mg/l  
Suspended Solids - 254 mg/l  
T.O.C. - 6.8 mg/l  
S<sup>-</sup> - None Detected

10. Bioassay and Bioassessment Evaluations:

- a. Liquid phase bioassay: \_\_\_\_\_ No effect \_\_\_\_\_
- b. Suspend particulate phase bicassay: \_\_\_\_\_ No effect \_\_\_\_\_
- c. Solid phase bicassay: \_\_\_\_\_ No effect \_\_\_\_\_

11. Properties of the dredged material:

- a. Solubility (% Water): 26% H<sub>2</sub>O
- b. Density (gm/cc): 2.04 gm/cc
- c. pH: 7.9

12. Method of release:

Bottom release - immediate

13. Procedure and site for subsequent barge and hopper washing:

Hoppers flushed at authorized disposal site.

14. Approved dumping site:

C-52 Pg. 5 of 5

a. Geographical position (latitude and longitude):

44°-36' N (Lat.); 124°-05'W (Long.)

b. Depth of water (meters): 18.3 meters

c. Distance (kilometers) from nearest coast: 3.3 kilometers

15. Additional information -

IMCO Report on Ocean Dumping - CY 821. Issuing authority:

a. Division North Pacific District Alaska

2. Date issued: No Permit-EA Jan783. Country of origin of dredged material or other matter:

United States of America, Alaska

Port of Loading (activity location): Nome Harbor

4. General description of dredged material, dredging, and transportation made:

a. Description: Silt and Sand

b. Mode of dredging: Clamshell

c. Mode of transportation: Barge

5. Form in which dredged material is presented for disposal:

Noncohesive sand w/trace of silt

297

In: 6.1

6. Material quantity (volume in metric units, cubic meters) of material dumped in the ocean and dates of actual disposal during reporting calendar year:

12,300 cubic yards = 9,461 m<sup>3</sup>  
5 June-Sept

7. Period for which permit is valid or project is scheduled:

5 June-30 Sept 1982

8. Expected frequency of dumping:

3 times daily

9. Chemical composition of the dredged material as reported in elutriate test concentrations or "bulk" or "total" analyses as appropriate:

- a. Elutriate test results:

(1) Nutrients: Not available

(2) Metals: Not available

(3) Organics:

Not available

b. Other analyses:

(1) Metals:

Not available

(2) Organics: Not available

(3) Other: Not available

10. Properties of the dredged material:

a. Solubility (% Water): Not available

b. Density (gm/cc): 2 gm/cc (125 lb/ft<sup>3</sup>)

c. pH: Not available

11. Method of packaging: Not applicable.

12. Method of release: Side dump

Time to release: Immediate

13. Procedure and site for subsequent barge and hopper washing:

Barge washed at authorized disposal site.

14. Approved dumping site:a. Geographical position (latitude and longitude):64° 30' Lat; 165° 25' Longb. Depth of water (meters): 4 metersc. Distance (kilometers) from nearest coast: 1 km15. Additional information - relevant factors listed in Annex III of the Convention, e.g., toxicity, other biological properties:

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